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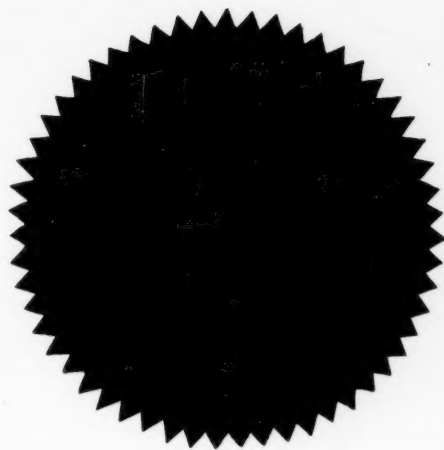
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The Journal

of the Michigan State Medical Society



Volume 49

October, 1950

Number 10

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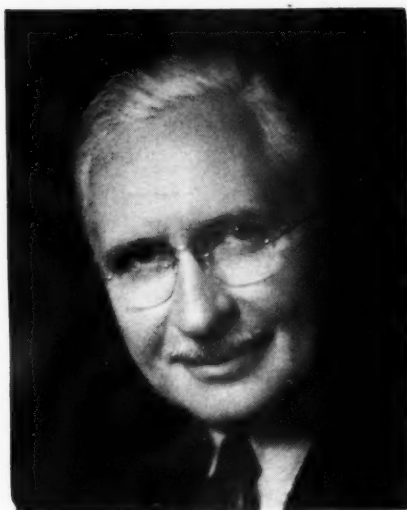
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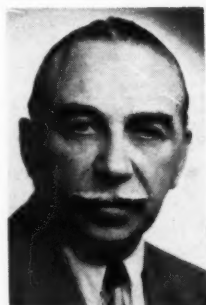
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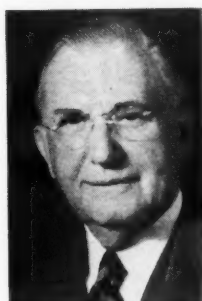
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THE JOURNAL

of the Michigan State Medical Society

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OCTOBER, 1950

NUMBER 10

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OCTOBER, 1950

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*Based on average reported values for milk.

Two kinds, Plain and Chocolate Flavored. Serving for serving, they are virtually identical in nutritional content.



TEACHING BY COLOR TELEVISION

Featured First Time at Two-Day Medical Seminar in Detroit, November 15-16

Teaching by television will reach a new milestone next month at the first postgraduate medical seminar ever presented entirely by means of color television.

Under the auspices of the Wayne University College of Medicine, a two-day program of medical and surgical procedures will be "colorcast" on November 15 and 16 to the Masonic Temple in Detroit from Grace Hospital, it was announced today by Dean Gordon H. Scott, of Wayne University.

The program will be put on in co-operation with the Academy of General Practice of Wayne County, the Wayne County Medical Society, and Grace Hospital, and will be sponsored and directed by Smith, Kline & French Laboratories, Philadelphia pharmaceutical firm.

Twelve special color television receivers will bring the program to physicians assembled from Michigan, Ohio, and Canada.

Although the seminar will be the sixteenth medical meeting at which color television has played a part, it will mark the first time that the entire program has been presented over color television.

In pioneering the medical application of color television, Smith, Kline & French has presented the medium at eleven medical meetings throughout the country, colorcasting a total of 125 surgical operations and 130 medical clinics. Presentations also are scheduled at the District of Columbia Medical Society meeting, October 2-4; the American College of Surgeons, in Boston, October 23-27; and the International College of Surgeons, Cleveland, November 1-2.

"Previous demonstrations of color television at medical meetings have only partially exploited the advantages of this electronic miracle by using it to supplement the main program," Dr. Scott said. "At our Detroit seminar color television will be used as the basic ingredient of a postgraduate seminar. The program is being prepared by and for general practitioners, not as a stunt but to help them learn more basic medicine faster. Instead of traveling from one clinic to another, doctors will be able to have a still better view of the demon-

stration while seated in the elegant ballroom of the Masonic Temple. This use of color television is not merely a matter of convenience; it expedites medical teaching; it means more medicine for more physicians in less time. We hope to teach as much medicine in two days as is ordinarily taught in a week-long postgraduate session."

Two-Way Exchange of Information

A new feature has been developed for this meeting. Smith, Kline & French have made arrangements to permit a two-way exchange of information. During a presentation, members of the audience will be able to ask questions of the physician or surgeon who is demonstrating a particular procedure. "In this manner," Dr. Scott said, "the audience will be brought right into the operating room or clinic, while actually remaining several miles away."

The program has been drawn up by a committee under the chairmanship of Dr. Charles G. Johnston, professor of surgery at Wayne University.

"We have emphasized clinical and surgical subjects of greatest interest to the general practitioner—that is, problems he meets in everyday practice," Dr. Johnston said. "Several of our presentations will center first around a demonstration and examination of patients with different types of a pathological lesion, followed by an operation on one of the types amenable to surgery. We hope thus to cover the range of problems most frequently encountered in the treatment of specific conditions."

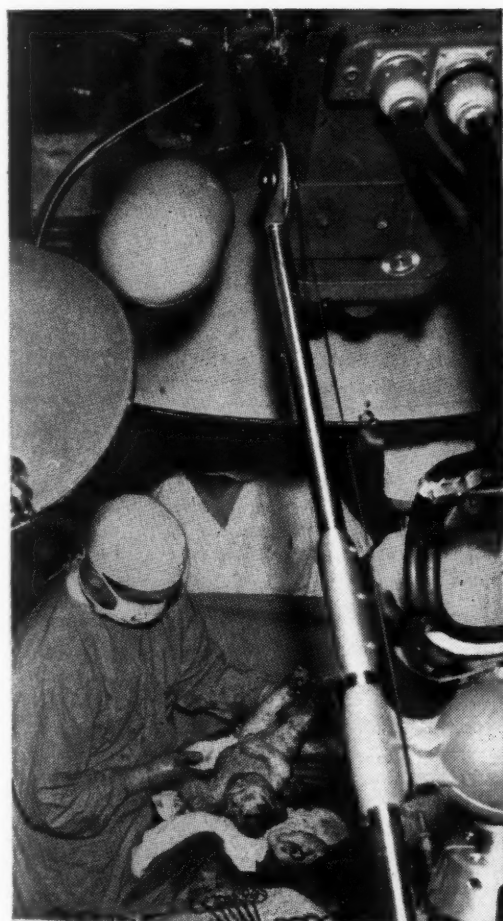
Dust as we are, the immortal spirit grows
Like harmony in music; there is a dark
Inscrutable workmanship that reconciles
Discordant elements, makes them cling together
In one society. How strange that all
The terrors, pains, and early miseries,
Regrets, vexations, lassitudes interfused
Within my mind should e'er have borne a part,
And that a needful part, in making up
The calm existence that is mine when I
Am worthy of myself.

—WORDSWORTH

announcing

The first Postgraduate Teaching Seminar ever to be presented by

color television



Wayne University College of Medicine
in cooperation with the
Detroit Academy of General Practice,
the Wayne County Medical Society,
and Grace Hospital will present. . .

a two-day Color Television program on
clinical problems commonly encountered
by the general practitioner.

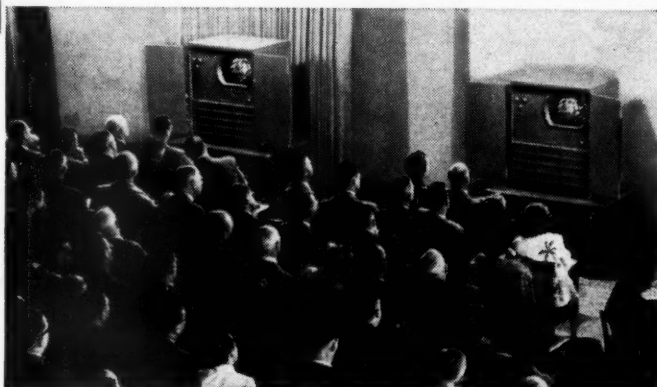
Medical and surgical procedures will be
transmitted from Grace Hospital to the
ballroom of Detroit's Masonic Temple
on Nov. 15th & 16th.

*An accredited meeting of the
Michigan State Medical Society*

Sponsored and directed by

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as a service to the medical profession



Fourth Michigan Postgraduate Clinical Institute

March 14, 15, 16, 1951



B. R. CORBUS, M.D.

Speakers and subjects at the 1951 Michigan Postgraduate Clinical Institute scheduled for the Book-Cadillac Hotel, Detroit, Wednesday, Thursday, Friday, March 14-15-16, 1951, are of such renown and of such practical interest, respectively, that the Arrangements Committee, headed by B. R. Corbus, M.D., Grand Rapids, anticipates a record-breaking crowd of Michigan, Ohio, Indiana, Wisconsin, and Ontario physicians and surgeons to register at the Institute.

Here's an early "peek" at the well-rounded three-day continuation course which busy practitioners of medicine will enjoy next March in Detroit:

Noyes L. Avery, Jr., M.D., Grand Rapids, "Pancreatitis Clinical Manifestations and Treatment."

Allan C. Barnes, M.D., Columbus, Ohio, "Dietary Therapy in Pregnancy and Its Complications."

Clifford D. Benson, M.D., Detroit, "Surgical Lesions in the Upper Abdomen in the Newborn and Infant."

David A. Boyd, Jr., M.D., Rochester, Minnesota (subject to be announced).

Osborne A. Brines, M.D., Detroit, participant of Clinical X-Ray Conference.

Willis E. Brown, M.D., Little Rock, Arkansas (subject to be announced).

Henry W. Cave, M.D., New York City, "Medical and Surgical Approach to Infectious Diseases of the Colon."

Jerome W. Conn, M.D., Ann Arbor, Moderator of ACTH and Cortisone Panel.

Arthur C. Curtis, M.D., Ann Arbor, "Contact Dermatitis."

Robert H. Denham, M.D., Grand Rapids, "The Neglected Field of Minor Surgery."

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Angus G. Goetz, M.D., Detroit (subject to be announced).

John E. Gordon, M.D., Boston, Mass. (subject to be announced).

Evarts A. Graham, M.D., St. Louis, will be the R. S. Sykes Lecturer and also will present another talk (subject to be announced).

W. Paul Holbrook, M.D., Tucson, Arizona, participant on ACTH and Cortisone Panel.

George Kamperman, M.D., Detroit, "Prevention of Prematurity."

Harold J. Kullman, M.D., Dearborn (subject to be announced).

G. Thomas McKean, M.D., Detroit, "Plural Fluid."

Francis D. Moore, M.D., Boston, Mass., "The Metabolic Response to Surgery" and participant on ACTH and Cortisone Panel.

Gordon B. Myers, M.D., Detroit, participant on Clinical X-Ray Conference.

Reed M. Nesbit, M.D., Ann Arbor, "Congenital Valve Obstructions in the Urinary Tract of Infants."

Lawrence Reynolds, M.D., Detroit, participant on Clinical X-Ray Conference.

J. Milton Robb, M.D., Detroit, "Cysts and Fistulae of the Face, Mouth and Neck."

Albert D. Ruedemann, M.D., Detroit (subject to be announced).

John M. Sheldon, M.D., Ann Arbor, "Antihistaminics."

Frederick C. Swartz, M.D., Lansing (subject to be announced).

Willard O. Thompson, M.D., Chicago, "Androgens and Estrogens in General Practice."

Harry A. Towsley, M.D., Ann Arbor, "The Diagnosis and Management of Group at Infancy."

Warren K. Wilner, M.D., Ann Arbor, "Anesthesia in Chest Surgery."

The Hoover Report reveals that the Army, Navy and Air Forces asked for a \$30 billion appropriation after being told that \$15 billion was all that the nation could afford. . . . In its budget the Army asked for 829,000 tropical uniforms at a cost of \$125 apiece. . . . This was more uniforms than we had soldiers. . . . The Army requested 910 houses for military personnel in Alaska at \$58,000 apiece, and 828 houses in Guam at a cost of \$48,000 apiece. . . . On June 30, 1948, government hospitals had room for 255,000 patients, but only 155,000 patients were on hand, and medical personnel were available to treat only 120,000. . . . At the same time, the Veterans Administration was demanding 38,000 more beds and an additional grant of 280 million dollars for new hospitals.—AAPS News Letter, April, 1950.

A urinary tract infection

Resistant to "... all available antibiotics and chemotherapeutic agents."¹

TREATED WITH TERRAMYCIN

M.F., male, age 48

History: Pyelonephritis, 1½ years' duration following ureterocutaneous implants (mixed infection: *P. vulgaris*, *E. coli*, *Staph. albus*, enterococci); previous therapy with all available antibiotics and chemotherapeutic agents without response.

Therapy: Terramycin, 2 Gm. daily for 5 days; orally in divided doses q. 6 h.

Result: Urine culture negative except for *P. vulgaris* by 2nd day of treatment. Response described as "good".

CRYSTALLINE Terramycin HYDROCHLORIDE

New Council-accepted broad-spectrum antibiotic
orally effective — well tolerated



1. Terramycin may be highly effective even when other antibiotics fail.¹
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suggested for: acute pneumococcal infections, including lobar pneumonia, bacteremia; acute streptococcal infections, including erysipelas, septic sore throat, tonsillitis; acute staphylococcal infections; bacillary infections, including anthrax; urinary tract infections due to *E. coli*, *A. aerogenes*, *Staphylococcus albus* or *aureus*, and other Terramycin-sensitive organisms; acute brucellosis (*abortus*, *melitensis*, *suis*); hemophilus infections; acute gonococcal infections; lymphogranuloma venereum; granuloma inguinale; primary atypical pneumonia; typhus (murine, epidemic, scrub); rickettsialpox.

Dosage: 2 to 3 Gm. daily by mouth in divided doses q. 6 h. is suggested for acute infections.

Supplied: 250 mg. capsules, bottles of 16 and 100;
100 mg. capsules, bottles of 25;
50 mg. capsules, bottles of 25.

1. King, E. Q.; Lewis, C. N.; Welch, H.; Clark, E. A., Jr.; Johnson, J. B.; Lyons, J. B.; Scott, R. B., and Cornely, P. B.: *J. A. M. A.* 143:1 (May 6) 1950.

2. Herrell, W. E.; Heilman, F. E.; Wellman, W. E., and Bartholomew, L. A.: *Proc. Staff Meet. Mayo Clin.* 25:183 (Apr. 12) 1950.

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You and Your Business

FIFTY YEAR CLUB

The ranks of the Michigan State Medical Society's "Fifty Year Club" were swelled to a total of 139 on September 20 when MSMS President W. E. Barstow, M.D., gave membership pins to nine veteran doctors of medicine who became eligible in 1950.

The new members of the organization, composed of those who have practiced medicine for fifty or more years, were inducted on the occasion of the annual Officers Night at the eighty-fifth Annual Session and Postgraduate Conference held in Detroit, September 17-22.

The new "Fifty Year Club" members are: Bruce Anderson, M.D., Pontiac; James Henry, M.D., Grand Rapids; H. H. Learmont, M.D., Crosswell; Charles Norton, M.D., Detroit; George R. Pray, M.D., Jackson; Edward Ramsey, M.D., Detroit; E. O. Sage, M.D., Detroit; William Stapleton, M.D., Detroit and Lewis L. Stewart, M.D., Jackson.

BLUE CROSS PROTECTS FAMILIES OF SERVICEMEN

Because of the Korean situation, Michigan Blue Cross-Blue Shield has reinstated its wartime military leave service program. The aim of this program is to provide hospital-medical protection for the dependents of subscribers, including members of the Michigan State Medical Society who enter the services and who are covered by Blue Cross.

It also assures those who go that their return to Blue Cross upon leaving military services will be a simple matter, requiring only notification to Blue Cross within 90 days after discharge.

Major provision of the program permits families of doctors going into the armed forces to continue to enjoy the comprehensive benefits and lower rates of the Blue Cross group program.

Under this provision, the doctor of medicine entering the services should notify Blue Cross upon induction so that whatever changes are necessary can be made in his billing, and then arrange to continue payments, for the dependents only.

There are two other alternatives for the Michigan State Medical Society member entering

the armed forces, under the Blue Cross military leave service program.

He can continue his contract intact, to be sure of hospital-medical protection for himself while on furlough or leave. In this case, no notification, at the time of induction or after discharge, would be necessary.

Or, if he chooses, he can have his contract cancelled altogether while in service, with the same requirement of notification within 90 days after discharge for reinstatement to the group coverage, if still eligible.

Of course, if a subscriber with dependents cancels his contract entirely for the duration of his service, besides leaving his family unprotected, there would be the nine-month waiting period after reinstatement to be eligible for maternity benefits.

HIGHLIGHTS OF EXECUTIVE COMMITTEE OF THE COUNCIL

Meeting of August 16, 1950

- Monthly financial report, including breakdown of the Public Education Account and of the Public Education Reserve Account, were presented, studied in detail and approved. Bills payable for the current month were presented, approved, and authorized for payment.
- Survey of Michigan State Veterans Facility at Grand Rapids. An invitation from the Michigan Civil Service Commission, requesting the Michigan State Medical Society to inspect this state facility and suggesting a method of procedure for this examination, was received and referred to a special MSMS Committee appointed for this purpose.
- County Mediation Committees. Discussing alleged impractices, the Executive Committee ruled "that any complainant be apprised of the fact that there is and has been available in every county, medical society a Mediation Committee to which the complainant may make reference in writing."
- The Executive Committee of The Council approved the recommendation of Saul Rosenzweig, M.D., Detroit, Chairman of the Wayne

(Continued on Page 1142)



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**HIGHLIGHTS OF EXECUTIVE
COMMITTEE OF THE COUNCIL**

(Continued from Page 1140)

- County Rheumatic Fever Center, that a scientific program on rheumatic fever be arranged in Detroit, to be held at a regular meeting of the Wayne County Medical Society, to which a nationally known speaker is to be invited.
- The Cancer Control Committee was informed that The Council of the Michigan State Medical Society definitely disapproves the compulsory reporting of cancer, for cause.
- Liaison Committee between MSMS and Michigan Hospital Association. J. E. Livesay, M.D., Flint, and Ralph Wadley, Md., Lansing were added to the Liaison Committee composed of J. Duane Miller, M.D., Grand Rapids, Chairman, E. G. Merritt, M.D., Detroit and J. A. Witter, M.D., Detroit.
- J. S. DeTar, M.D., Milan was appointed MSMS representative to the Conference on M.D. Participation in Health Councils, Detroit, October 1, 1950, sponsored by the AMA Council on Medical Service and the Michigan State Medical Society.
- Councilor W. S. Jones, M.D., Menominee, was authorized to attend the Annual Session of the State Medical Society of Wisconsin, in Milwaukee, as MSMS representative.
- J. M. Dorsey, M.D., Detroit, was appointed as MSMS representative on the Citizens Education Committee, a state-wide organization interested in the mental health problem.
- Procurement and Assignment for Michigan. The Executive Committee of The Council authorized The Council Chairman to furnish the American Medical Association with the names of three doctors of medicine from widely separated areas of Michigan, to be listed as the Chairman, the First Vice Chairman, and the Second Vice Chairman of Procurement and Assignment for Michigan, and that it be recommended to the AMA that the two Vice Chairmen have duplicates of the file in case of atomic or other major emergency in this State.
- Frank Van Schoick, M.D., Jackson, was selected as the MSMS representative to the Michigan Youth Commission, from which recommendations from this state will be forwarded for consideration at the Mid-century White House

Conference on Children and Youth, Washington, D. C.

- Dr. Lawrence L. Quill, E. Lansing, Professor of Chemistry at Michigan State College, Dr. J. J. Grebe, Midland, Physicist at Dow Chemical Company, and A. O. Brines, M.D., Detroit, were added as members of the MSMS Committee on Atomic and Allied Procedures.
- W. B. Cooksey, M.D., Detroit, Delegate from Michigan to the American Heart Association and Immediate Past President of the Michigan Heart Association, spoke of the work of the MHA and of its co-operative activity with the Michigan Rheumatic Fever Control Program. Thanks were extended to the MHA and its officers and directors.
- Public Relations Council's report included progress on (a) the Good Citizenship Campaign; (b) Radio and television assignments during the MSMS Annual Session, 1950; (c) Spread to other states of MSMS movies "To Your Health" and "Lucky Junior"; (d) The placing of advertisements in various media; (e) The National Advertising Campaign of the AMA; and (f) The sale of MSMS publications to other state medical societies and organizations.
- The following Committee reports were given consideration: (a) On Study of Medical Practice Act, meeting of July 27; (b) Health Survey Advisory Committee, meeting of July 27; (c) Committee on 1951 Michigan Industrial Health Day, meeting of August 15; (d) Permanent Conference Committee, June 28. In addition, the minutes of the Governor's Civil Defense Council, meetings of July 31 and August 11, were presented and discussed and various suggestions for co-operation in the medical phases were offered.

**AMERICAN COLLEGE OF PHYSICIANS—
MIDWEST REGIONAL MEETING**

The Midwest Regional Meeting of the American College of Physicians will be held at the Memorial Union Theater on the campus of the University of Wisconsin in Madison, Wisconsin, Saturday, November 18, 1950. Registration will begin at 8:00 A.M. and the scientific meetings will be followed by a social hour and dinner to be held at the Loraine Hotel in Madison, beginning at 5:30 P.M. The day will be filled by the presentation of scientific papers. In addition, a scientific exhibit will be provided in the foyer of the Memorial Union Theater. Details of the program and an outline of the exhibits follow.

(Continued on Page 1144)

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hand

—in preoperative apprehension...
postoperative restlessness...

insomnia...

epilepsy...

dysmenorrhea...

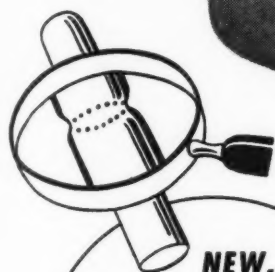
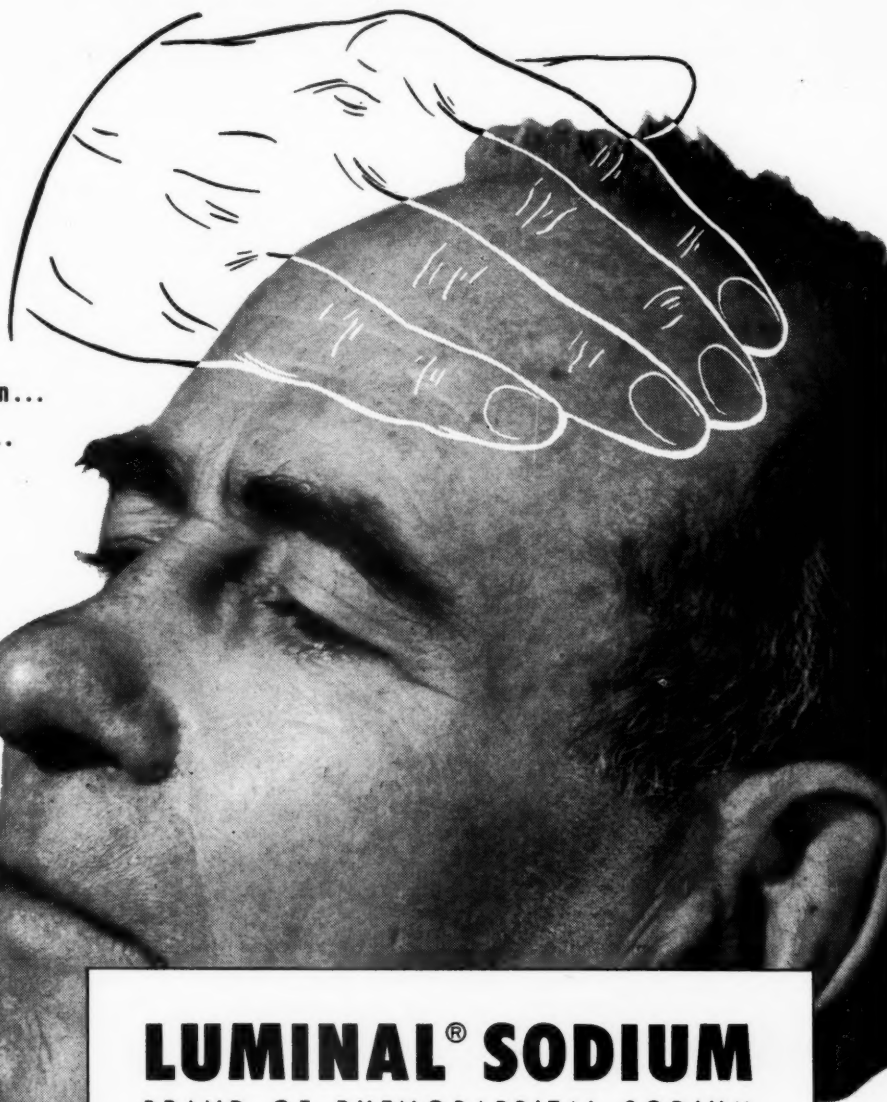
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neuroses...



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AMERICAN COLLEGE OF PHYSICIANS MIDWEST REGIONAL MEETING

(Continued from Page 1142)

Three transportation companies, the Northwest Airlines, the Chicago, Milwaukee, St. Paul, and Pacific Railroad, and the Northwestern Railroad, are co-operating to provide transportation to and from the meeting. Special pullman cars on both of the railroads will be operated from Chicago to Madison immediately preceding the meeting and returning to Chicago following the dinner in the evening. Either railroad is prepared to make reservations by mail through their Madison offices. In addition, rooms will be available at all of the larger hotels in Madison. Your connection with this meeting should be mentioned in making your hotel reservation.

Entertainment has been planned for the ladies, including a tea on Saturday afternoon at which Mrs. Oscar Rennebohm, wife of the Governor of Wisconsin, will be hostess. Tea will be served in the Governor's Mansion on the shores of Lake Mendota.

It must be emphasized that this meeting is open to all physicians whether or not they are members of the American College of Physicians. All physicians and their wives are cordially invited to be present and to participate.

Reservations for luncheon and dinner should be made immediately through Dr. H. M. Coon, 1300 University Avenue, Madison 6, Wisconsin.

REFILLING PRESCRIPTIONS

Practicing pharmacists have labored under a handicap of no formal regulation on the extent to which refilling of prescriptions is regulated by the Federal Food, Drug and Cosmetic Act. The interpretations of the Commissioner and his staff have at times been at variance with the interpretations of the sections of the Act concerning prescription refilling by the officers and Council of the American Pharmaceutical Association.

Efforts have been made by the Association to resolve the difference in their belief which is that the Food and Drug Administration has been vague and arbitrary in its interpretations of what the Association believes Congress really intended.

In an effort to resolve these differences a legal study has been made and a long report requesting the Honorable Oscar R. Ewing, Administrator of the Federal Security Agency, to issue an order specifically outlining the problem.

The ruling asked for is that no prescription can be refilled if marked by the issuing physician, dentist or veterinarian, as not to be refilled; or if it contains a drug which falls under the prohibition section of the Food, Drug and Cosmetic Act, with certain restrictions.

Second, any other prescription can be lawfully refilled if the issuing physician, dentist or veterinarian is authorized by law to administer such a drug, and if such a prescription when refilled bears a label giving the name and place of business of the dispenser, the serial number and date of the prescription, and the name of the physician, dentist or veterinarian.

MICHIGAN'S FORGOTTEN

Michigan has 33,000 "forgotten" citizens. Citizens without a leader and without rational ability to call attention to their neglect. These people are the 29,000 mentally ill in Michigan's hospitals and the near 4,000 who should be treated but for whom there is no room.

These "forgotten" persons graphically came to light when the state legislature unanimously approved the placing of a \$65,000,000 bond issue proposal on the November 7 ballot to make available new mental and tuberculosis hospitals.

Calling our mentally ill "forgotten" is not fair to the conscientious and overworked mental health personnel who have vainly tried to adequately care for the growing horde. "Forgotten" does describe the attitude Michigan's citizens have taken toward the problem for the past 20 years.

But the state's voters now have the chance to make amends. They must first approve the bond proposal before corrections can be made. The task now is to make those voters "remember" their obligation to fellow citizens unable to care for themselves and the dire condition they are now in.

Facts, not scare techniques, will bring home the truth of Michigan's mental health situation.

First, there are now 29,000 mentally ill patients in our state hospitals. These patients are jammed into facilities officially called 22 per cent overcrowded. However, the truth is, our hospitals have been 10 per cent overcrowded for many years. That 22 per cent official overcrowding therefore, is requiring 132 patients to live in the space intended for 100.

Second, according to statistics in relation to other states, Michigan has now almost 4,000 untreated mentally ill or disturbed persons.

As of August 1, 1950, this included the following persons actually committed by our courts but still untreated because of a complete lack of space: 324 mentally ill, 56 criminally insane, 633 mentally deficient, and 175 epileptics. That is a total of 1,188 that should now legally be in mental hospitals.

A total of 633 unfortunate children who have been committed to hospitals for the feeble-minded but who must remain untreated because of no available facilities also exists.

But the story of the "forgotten" does not end there. Mental health experts predict that 600 new cases requiring hospital treatment can be expected in Michigan every year for some time in the future.

That's the story. The final point is this. Michigan, nearly at the top of the nation in population and state income, ranks but twenty-first among the states in providing adequate care for its mentally ill.

The means for immediate correction of the shameful situation will soon be in the hands of each voter of Michigan when he or she picks up his ballot on November 7. The \$65,000,000 bond proposal will be No. 2 on the list of proposed amendments.

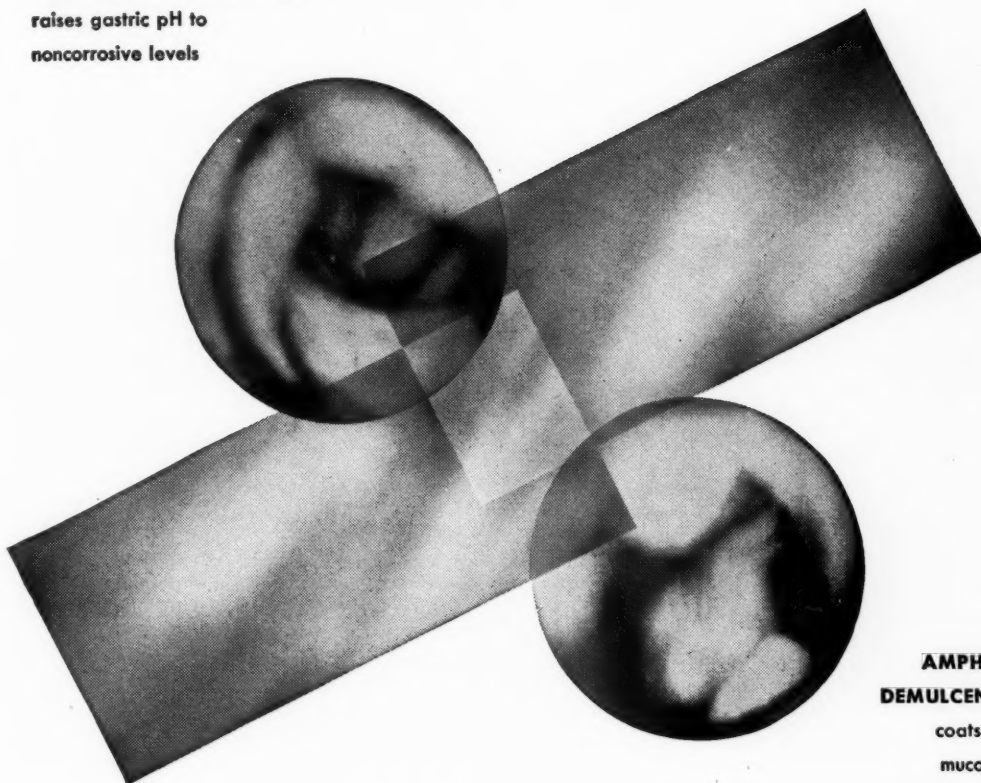
Here's what passage of that bond proposal will do. It will allow the state legislature to begin immediate

(Continued on Page 1154)



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OCTOBER, 1950

Say you saw it in the Journal of the Michigan State Medical Society

1145

SIXTEEN MILLION IN BLUE SHIELD



Blue Shield Commission officials at the recent San Francisco meeting seem pleased with the report shown them by Frank E. Smith, Director, which reveals that Blue Shield enrollment has topped the 16 million mark and is increasing by 28,000 every working day. Grouped around Smith are (l. to r.) O. B. Owens, New Orleans, La., Secretary; Jay C. Ketchum, Detroit, Treasurer; R. L. Novy, M.D., Detroit, Vice-President, and L. Howard Schriver, M.D., Cincinnati, President.

MICHIGAN MEDICAL SCHOOL CENTENNIAL

The University of Michigan Medical School, one of the oldest of its kind in North America and noted for its great contributions to medical progress, was duly honored by the Michigan State Medical Society on the occasion of its one hundredth anniversary. An attractive Scroll of Appreciation was presented to its president and dean by the organized medical profession of Michigan.

The commemorative parchment was presented to President Alexander G. Ruthven and Medical Dean A. C. Furstenberg, M.D., by W. E. Barstow, M.D., St. Louis, Michigan State Medical Society President. The presentation was an impressive part of the annual Officers Night ceremonies held Wednesday, September 20, in the Grand Ballroom of the Hotel Book-Cadillac, Detroit, coincident with the eighty-fifth annual session.

The centennial of the famous medical center at

Ann Arbor had previously been recognized by the dedication of the May issue of *THE JOURNAL OF THE MICHIGAN STATE MEDICAL SOCIETY* to this event.

The inscription on the award made to the University of Michigan Medical School reads as follows:

"Presented by the Michigan State Medical Society to the University of Michigan Medical School on the occasion of its one hundredth Anniversary in deep appreciation and grateful recognition of long and distinguished service to humanity."

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BREAST FEEDING

as long as
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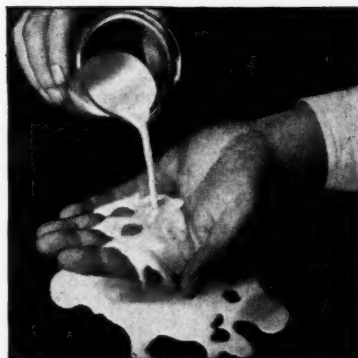
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DOCTOR COOKSEY ELECTED PRESIDENT, UNITED HEALTH AND WELFARE FUND



W. B. COOKSEY, M.D.

Warren B. Cooksey, M.D., of Detroit, one of the founders of the Michigan Heart Association and its first president, was elected president of the United Health and Welfare Fund of Michigan at the organization's annual meeting September 13. Dr. Cooksey is the third president of the state fund-raising organization.

Five doctors of medicine serve with Dr. Cooksey on the Fund board. They are L. Fernald Foster, M.D., of Bay City, D. F. Scott, M.D., of Sault Ste. Marie, Gereon Frederickson, M.D., of Iron Mountain, S. Rudolph Light, M.D., of Kalamazoo

and Otto K. Engelke, M.D. of Ann Arbor.

The United Fund was organized to raise money for health and welfare services economically and efficiently and to reduce the number of separate campaigns. Its statewide goal for thirty-nine member agencies is \$1,818,083. Most of this will be raised in fall campaigns in conjunction with Community Chest appeals, but there will be a few counties which will campaign in February.

In accepting the presidency, Dr. Cooksey pointed out that 72 per cent of the money raised for the United Fund is for health agencies.

In addition to his new position, Dr. Cooksey was elected, in San Francisco last June, a director of the American Heart Association.

M.D. REGISTRATION FOR ELECTIONS REACHES 97 PER CENT

The registration of doctors of medicine, their wives and their medical assistants, to participate in the 1950 elections, has reached a new all-time high. A report covering thirty-nine county medical societies shows that our Michigan medical practitioners have gained a 97.15 per cent total registration. Figures obtained at the same time show that doctors' wives are 97.13 per cent registered, while the medical assistants have a total of 90.5 per cent participation.

The latest report of the results of project "Registration" of the MSMS "Good Citizenship Campaign" are as follows:

	97.15%	97.13%	90.5%
	Doctors	Wives	Medical Assistants
Allegan	100%	100%	100%
Alpena	100%	98%	90%
Bay	100%	100%	99%
Barry	98%	98%	75%
Branch	100%	100%	98%
Calhoun	93%	96%	90%
Cass	100%	100%	100%
Chippewa-Mackinaw	100%	100%	100%
Delta-Schoolcraft	95%	95%	95%
Dickinson-Iron	100%	100%	100%
Genesee	87%	87%	—

Grand Traverse-Leelanau-			
Benzie	100%	100%	100%
Gratiot-Isabella-Clare	100%	100%	100%
Hillsdale	100%	100%	90%
Houghton-Baraga-			
Keweenaw	100%	100%	100%
Huron	100%	100%	100%
Ionia-Montcalm	94%	92%	90%
Jackson	87%	82%	—
Kalamazoo	98%	98%	95%
Lapeer	100%	100%	—
Luce	100%	100%	100%
Manistee	100%	100%	100%
Mason	100%	100%	100%
Mecosta-Osceola-Lake	100%	100%	100%
Menominee	100%	100%	66%
Muskegon	98%	98%	85%
Newaygo	100%	100%	100%
North Central.....	80%	75%	70%
Northern Michigan.....	100%	98%	90%
Oceana	100%	100%	90%
Ottawa	100%	100%	100%
Saginaw	95%	95%	95%
Sanilac	100%	100%	—
St. Clair.....	96%	95%	82%
St. Joseph.....	100%	100%	92%
Van Buren.....	99%	99%	90%
Washtenaw	76%	—	—
Wayne	99%	91%	86%
Wexford-Missaukee	94%	94%	100%



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Military Medicine

ARMY AUTHORITIES APPOINTMENT OF WOMEN DOCTORS AS RESERVE CORPS OFFICERS

Appointment and concurrent assignment to active duty as Reserve Officers of women physicians, dentists, and allied specialists, has been authorized, according to announcement by the Department of the Army.

This marks the first time authorization has been given for women to be commissioned in the Medical, Dental, Veterinary, and Medical Service Corps Reserves. They will be brought on duty under regulations currently providing for the commissioning of male officers in these Corps. Some women did serve in the Army as physicians and technicians during World War II, but their commissions have expired.

As Reserve officers on active duty, these women will be given opportunities for clinical practice and advancement which are now available to male officers in comparable grades, Major General R. W. Bliss, Surgeon General of the Army, pointed out. Appointments will be in grades from first lieutenant to colonel, depending upon age, experience, and professional qualifications. The pay, allowances, dependency and retirement benefits which accrue to male officers will apply to the women medical reservists. Women physicians and dentists will also draw the \$100 a month professional pay allowed above the base pay of their commissioned rank. They will be eligible for service in every type of military medical facility, with the exception of forward medical installations in combat zones.

General Bliss said his office had received numerous letters during the past year from women physicians desiring military service.

ARMY REDUCES RECALLS OF WW II PHYSICIANS, DENTISTS

Army area commanders have received new instructions relative to the recall of reserve medical, dental and veterinary officers which should reduce the number with World War II service to be called from 50 to 75 per cent, the Department of the Army announced today.

The new move, taken in view of legislation providing for selective induction of physicians, dentists and members of other allied professions, will have the effect of limiting the recall of officers with World War II service to a maximum of 364 physicians, 126 dentists and twenty-nine veterinarians. The actual number recalled will be considerably less than this figure, it was estimated.

The new special quotas restricting World War II recalls will have no effect on total Army Medical Service recall requirements, according to Major General R. W. Bliss, Army Surgeon General. The new policy will, however, have the effect of strengthening the preferred status of professional officers with World War II service, thereby reflecting the active duty priorities contained in the new legislation.

Since it is estimated that 90 to 120 days will be required after the passage of the legislation before physicians, dentists and others actually enter military service, the policy is an interim measure, designed both to protect those with the most military service and assure an adequate number of professional officers for the Army before the new legislation becomes effective.

This is the way it is expected to work:

Each Army commander will still have the same over-all quota of Army Medical Service personnel as originally announced. However, his quota will now consist of two parts—the new special quota and the balance of his over-all allocation. In filling the special quota, every effort will be made to fill it insofar as grade, specialty and numbers permit, with volunteers, including former ASTP students with no active service, and reserve officers with no World War II service. If necessary, officers with World War II service may be recalled when others are not available in the required grades and specialties. The balance of the over-all quota must be filled with volunteers and reserve officers without wartime service and will not be filled with World War II officers.

All officers with World War II service not included in recalls for the special quota in each Army area will be temporarily deferred from recall, except those assigned to duty with alerted National Guard or Organized Reserve units. The policy will not apply to officers assigned to these units.

Maximum quotas by Army areas follow:

	Medical Corps	Dental Corps	Veterinary Corps
First Army	70	31	4
Second Army	68	26	7
Third Army	45	14	4
Fourth Army	46	12	5
Fifth Army	68	31	6
Sixth Army	67	12	3

MEDICAL PERSONNEL POLICY ANNOUNCED BY ARMY

A policy under which professional medical service officers assigned to Reserve or National Guard units called to active duty will be recalled only to the extent they can actually be utilized, the Department of the Army has announced.

Two general types of units will be affected by this policy. The first includes Army divisions, headquarters of medical battalions and groups, medical clearing companies, medical field laboratories, field hospitals, mobile army surgical hospitals, and all nonmedical units with medical personnel included in their organizations.

Units included in the second group are evacuation hospitals, convalescent centers, general and station hospitals, general laboratories, hospital trains, and general dispensaries.

For the first group, the policy will be to call all med-

(Continued on Page 1152)

Shampaine Examination & Treatment Chairs

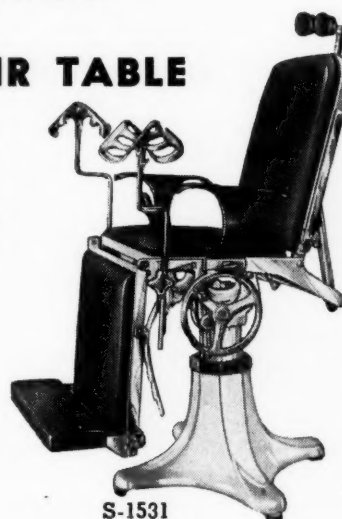
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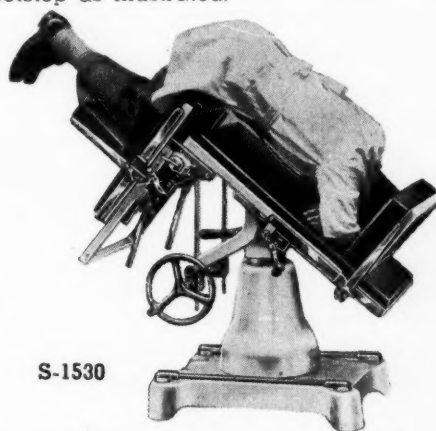
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MILITARY MEDICINE

MEDICAL PERSONNEL POLICY ANNOUNCED BY ARMY

(Continued from Page 1150)

ical service officers, including physicians, dentists and nurses, to duty with their units. However, only the minimum required for actual training will remain with their units during the training period. For example, although an infantry division is authorized 42 physicians, only 17 will be retained by the division during its training period. The balance will be assigned to the hospital serving the division. Provision has been made for rotation to assure that each physician has the greatest possible opportunity to continue a balanced medical practice, both with the unit in the field and at the station hospital. All the division dental officers would be utilized at the camp hospital or dental clinic.

For units falling in the second group, only the professional personnel actually required for training or support will be recalled. The balance of the assigned medical service officers will remain at home until a short time before the unit is actually ready for operation. Thus, in the case of a 1,000-bed general hospital, only three physicians and two nurses will initially be called to duty with the unit. The balance of the physicians and nurses will await a warning order for the unit's deployment. Dental officers will be used in the same manner as those assigned to units falling in the first group.

All Medical Service Corps officers and enlisted personnel assigned to all types of units will be called to active duty with their units.

DRAFT SOME DOCTORS? IT'S AN EXCELLENT IDEA

Oh, doctor dear, I bleed for thee, but I do not bleed very profusely. Just a slight trickle, and don't bother with the tourniquet. It'll stop in a minute.

We notice that the Senate passed a bill to draft some of the 4,000 short-order sawbones who beat the last unpleasantness by remaining in college at Government expense to sop up materia medica.

Meanwhile, grayheaded brain surgeons were swabbing athletes' foot in odd places, and obstetricians were ministering to Pacific rot.

Of this number, 4,000—exactly one man had volunteered for service at last reading—and so we got to squeeze swiftly through Congress to get enough doctors to bind a wound without calling up physicians who have already spent their time in the last rat race.

One man out of 4,000.

I am reminded slightly of the tramp athletes who found a snug harbor at the military academies during World War II, to bleed and die upon the football fields.

There were considerably worse fates in the dear departed conflict than a Government-subsidized technical education, which kept you out of the foxholes and off the destroyers and stuffed your skulls with expensive book larnin'.

It costs a sight to build a doctor, even in peacetime. To beat a draft and knock off a free medical education is quite a feat.

Like the man said, once, there is no such thing as a

free lunch. What you take out you put back. The man says put it back, now, and one guy out of 4,000 volunteers, even though the volunteers get an extra \$100 a month.

The doctors who got educated in time of actual war have a debt to repay comparable to no other classification I can think of offhand.

The tragedy of war to others was to them a decisive boom—complete safety, the pleasures of the home front and a gratis education that runs into thousands of dollars.

These men literally owe their profession, their immediate livelihood, to other men's blood.

I am generally reticent about waving a flag over other folk's heads, but this is one group I wouldn't weep for if they all got drafted on private's pay.

They had it awful easy when a lot of other guys had it awful tough. They owe us some interest on the loan.—Ruark in *Detroit Free Press*, August 31, 1950.

Unless one considers all tumors of childhood to be malignant until proved otherwise, little headway will be made with the problem of cancer control.

* * *

Radiation therapy should not be utilized in the treatment of parotid neoplasms.

* * *

Small discrete masses in the parotid gland which do not involve the facial nerve should be excised *in toto* for histologic diagnosis.

* * *

Accumulated clinical evidence indicates that the precise differential diagnosis of benign from malignant ulcers of the stomach is quite impossible with the use of methods currently in vogue.

* * *

If the results of treatment of gastric cancer are to reach a measure of worthwhile success, collective effort must be directed toward those lesions which herald their presence early by symptoms which are ulcer-like in character.

* * *

An ulcer in any location in the stomach may be malignant.

* * *

The differentiation of benign from malignant gastric ulcers on the basis of gastric acidity is quite unsound.

* * *

The cytological cervical smear should always be taken *before* the patient has taken a douche and before a bimanual vaginal examination is made. The speculum should be inserted into the vagina with little or, preferably, no lubricating agent on it.

* * *

The study of exfoliative cells should not be regarded as a complete diagnostic procedure but rather as corroborative evidence with established procedures.

* * *

Whenever there is an indication for a rectal examination, a proctosigmoidoscopic observation should precede the roentgenologic examination.

AUREOMYCIN CRYSTALLINE

in Tularemia

Tularemia, which is a serious problem in many parts of this country, can be successfully treated with aureomycin.

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Capsules: Bottles of 25, 50 mg. each capsule. Bottles of 16, 250 mg. each capsule.

Ophthalmic: Vials of 25 mg. with dropper; solution prepared by adding 5 cc. of distilled water.

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OCTOBER, 1950

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1153



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Editorial Comment

SALUTE TO THE MEDICS

Despite lack of conspicuous military success for our arms in Korea, it is encouraging to note that army medicine is doing a bang-up job in easing the suffering of our wounded. Maj. Gen. Edgar Erskin Hume, top army surgeon in the Far East, is quoted by the United Press as having said the American soldiers wounded in Korea are recovering so rapidly they may beat the World War II medical record.

If the present rate of recovery continues, the last war's recovery rate of six out of seven wounded patients in United States military hospitals being returned to duty will be bettered.

Medical department personnel, Gen. Hume said, are ministering to the wounded on the front lines without immunity to shrapnel or bullets. The casualty rate among the-medics is second only to the infantry.

In the Spanish-American war, 15 deaths resulted from typhoid fever to every one caused by enemy bullets. Conditions for the spread of this disease are present in Korea, yet so carefully have the medics planned their control of intestinal maladies, that not one case of typhoid has been reported.

For this conspicuous service the nation is grateful.—*Cleveland Plain Dealer*, August 19, 1950.

MICHIGAN'S FORGOTTEN

(Continued from Page 1144)

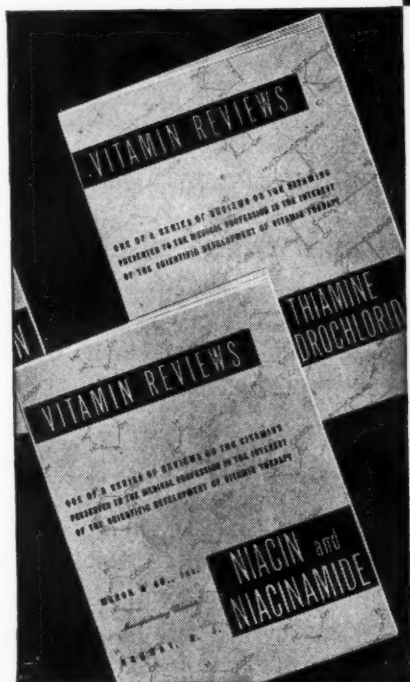
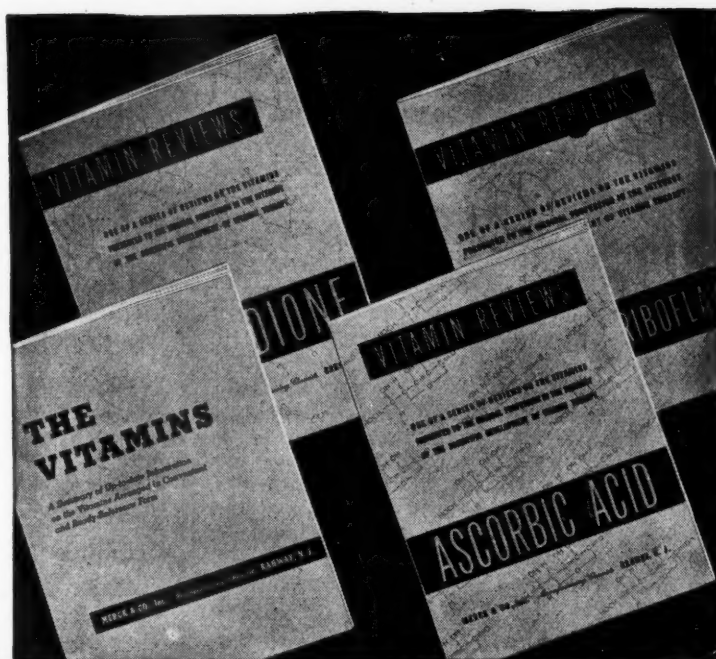
planning and construction of complete hospital facilities for 8,125 patients suffering from mental illness and tuberculosis. The new facilities would relieve the overcrowding of our present mental hospitals and provide treatment for those now waiting.

Michigan's doctors need not be told of the state's urgent need for new mental health facilities. Daily they are confronted with cases that form part of the critical situation. Every doctor in our state is therefore not only requested to vote YES on Proposal No. 2, but to help educate every citizen in the state on the urgent need for new mental hospitals. Only through active participation of leading citizens, such as our doctors, can this bond issue proposal to clear up our mental health situation be overwhelmingly approved with YES votes.

(Submitted by Citizens Education Committee on Bond Issue for Mental and Tuberculosis Hospitals. Published as information material.)

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- ➡ Signs and symptoms of deficiency.
- ➡ Daily requirements and dosages.
- ➡ Distribution in foods.
- ➡ Methods of administration.
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**MEDICAL EXHIBITORS ASSOCIATION
TWENTIETH ANNIVERSARY**

The Medical Exhibitors Association was founded in Detroit twenty years ago. This event was fittingly commemorated by the Michigan State Medical Society on the occasion of its eighty-fifth annual session in Detroit.

A Scroll of Appreciation was presented to the Medical Exhibitors Association, through its President Lauren H. Ashe of New York, by Michigan State Medical Society President C. E. Umphrey, M.D. of Detroit, on September 21 at the Book-Cadillac Hotel, Detroit. Approximately 100 Honor Guests, members of the MEA, as well as 310 exhibitors and their ladies, were present at the presentation ceremony which took place in the Grand Ballroom of the Book-Cadillac Hotel, Detroit.

The Scroll of Appreciation is inscribed as follows:

In Commemoration of the
FOUNDING IN DETROIT
of the
MEDICAL EXHIBITORS ASSOCIATION

The Michigan State Medical Society congratulates this organization on twenty years of fruitful service rendered to its members and to the medical profession of North America.

Michigan State Medical Society

On this occasion, also, the Michigan State Medical Society honored its Executive Director, William J. Burns, by the presentation of an illuminated parchment scroll. The recognition reads as follows:

MICHIGAN STATE MEDICAL SOCIETY

In recognition and appreciation of his excellent service in the development of a lasting and cordial liaison between the Medical Exhibitors Association and the Medical Profession in Michigan, this award is presented on the Twentieth Anniversary of the Medical Exhibitors Association to William J. Burns, Executive Director, MSMS. Dated this 21st day of September, 1950, at Detroit, Michigan.

(Signed) C. E. UMPHREY, M.D., *President*
L. FERNALD FOSTER, M.D., *Secretary*

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OCTOBER, 1950

NUMBER 10

A Doctor Makes a Critical Survey of the Medical Profession

By Paul R. Hawley, M.D.

Chicago, Illinois

I HASTEN TO mention that the subject of this paper was not of my own selection. It was assigned to me by the Program Committee. Under other circumstances I would not presume to judge our profession—especially in public. However, my many years of service in the Army taught me never to refuse a duty, no matter how unpleasant. I do consider this a duty since, after accepting the kind invitation to speak at your meeting last year, I was forced by an unforeseen contingency to ask you to excuse me.

If I had at my disposal an unlimited amount of time, this would not be at all an unpleasant duty, because for every adverse criticism which can be levelled at the medical profession there are ten attributes which are matters for commendation. I could point out the tremendous advances in medical care in the past twenty-five years—advances in which American medicine has led the world. With the socialization of medical care in many European countries, medical progress lagged there, and the world capital of medicine moved westward across the Atlantic, where a free medical profession seized the torch and has since led the procession toward better health.

I could point out that we are the healthiest nation in the world, thanks to medical progress in this country. I know that proponents of compulsory health insurance like to argue that general mortality is slightly lower in some of the Scandinavian countries in which medicine has been social-

ized to a greater or lesser degree, but these people fail to state that Swedes live longer in Minnesota than they do in Sweden, and that Norwegians live longer in the Dakotas than they do in Norway. If the Scandinavian countries had, instead of their relatively pure racial strains, a polyglot population such as ours—with its several racial strains which are notoriously susceptible to different killing diseases—their general mortality would be significantly higher than ours. It is an incontrovertible fact that the conditions which affect health, which promote long life, are more favorable in the United States than in any other country of the world. You can't make a horse live as long as an elephant no matter how much medical care you give him, or how hygienic the surroundings in which you keep him.

I presume, however, that you did not invite me here to pay you pretty compliments, but rather to lay before you those characteristics and practices which seem to me to injure the medical profession—especially at this critical period in the history of American medicine.

It would be presumptuous if I were to confront you with personal criticism. Who am I to cast a stone at my professional brethren? I have sometimes been charged with ignorance of the problems of the private practice of medicine on the grounds that I have never engaged in private practice. This is not quite true—I have been in the private practice of medicine. Furthermore, my earliest memories are associated with the private practice of medicine. I was born, and grew to manhood, in a house in which two private practitioners lived—my grandfather and my father. Since 1942, I have had the closest possible association with hundreds of private practitioners. I have drunk deeply of their philosophy—and I assure you that I have, and I hold, the point of view of the finest element in American medicine. All this has taught me two facts—first, that the vast majority of

practicing physicians are able and honest men, devoted to the welfare of their patients; and, second, that, as in all walks of life including even the clergy, there are a few men in medicine who do things which bring discredit upon the entire profession.

Never in its history has the medical profession needed fine public relations as it does now. Most of you know that publicity and public relations are two entirely different things. What we need is the unqualified good will of all of the people; and I am going to talk to you about some things which, in my opinion, threaten this great asset of public good will. I am going to discuss several charges which the public frequently hurls against the medical profession. Some of these may come as a surprise to most of you. Lay people do not often offer criticism of the medical profession to honest and able physicians. In the first place, they do not like to be rude; and, in the second place, such criticisms are not applicable to the better practitioners.

But, I am in a different position. I travel about the country much of the time. I am frequently engaged in conversation by people who do not know who I am. I have a wide acquaintance among industrialists, lawyers and business people who, because of my peculiar relationship to medicine, are franker with me than perhaps they would be with their family physicians. So, perhaps I hear more criticism of the medical profession than does the average physician.

I pay no attention to the criticisms of the chronic complainers, of the Socialists and Communists, and their fellow-travelers—not to anything that Mr. Oscar Ewing says, or, for that matter, that other people even more highly placed in the Government say—but the criticisms of men known to be devoted to the preservation of free enterprise, and of the little man who harbors no prejudice, deserve our most careful consideration. It is to these, and to these only, that I shall address myself.

Beyond question, the commonest criticism of the medical profession is that their fees are excessive. The majority of people think that doctors are getting rich by soaking the public for all that the traffic will bear. Even a casual examination of the records of the probate courts of this country would show the fallacy of such an idea. The estates of deceased doctors are notoriously small.

Criticism of this nature should remind us forcibly

that it is a human failing to generalize—that people tend to magnify the exception and to disregard the rule, and that one case of an exorbitant fee does us more harm than 100 cases of reasonable fees. It was more than 175 years ago that Edmund Burke said: "I would not know how to draw up an indictment against an entire people," but too many Americans are willing to rush in where Edmund Burke feared to tread.

A study of the total amount of medical fees paid in this country shows that they have not risen nearly so much as has the general cost of living. This is evidence that the medical profession as a whole are not gouging the public. On the other hand, scarcely a week passes in which there is not brought to my personal attention a case of a completely unreasonable medical fee.

To select two or three at random, a good doctor friend of mine is a member of one of the local advisory boards of the medical care plan of the United Mine Workers. Not long ago, a case for submucous resection was referred by the United Mine Workers to a young nose and throat man who had been practicing his specialty only a year or so. He presented a bill for \$600. The medical advisory board called him before them and tried to get him to reduce his fee, since the patient was a poor miner who could not himself have afforded to pay one-sixth of that charge. The doctor was adamant, and the advisory board could do nothing more than to advise that the fee be not paid. There have been rumors of excessive fees charged the United Mine Workers Fund, and hints that their system of paying fees for service might soon be changed. The goose that lays the golden egg is always in danger of being killed by some irresponsible person.

A Blue Shield subscriber recently underwent a partial gastric resection. For this operation, the Blue Shield fee was \$200—not enough for a well-to-do patient but more than could be collected from a medically indigent patient. This patient was not medically indigent, but he was far from being a wealthy man. The surgeon's bill was \$4,500. This did two things to the patient: it soured him against medical insurance, and it made him mad as hell at the entire medical profession.

Not long ago, one of the girls in our office had to have an operation. It was not a long and difficult operation nor one that required much after-care. For this operation, Blue Shield allows

\$100. She consulted a surgeon who told her his minimum fee is \$500. This girl makes about \$60 a week. She had saved \$200 against the operation which, with her Blue Cross and Blue Shield protection, she had hoped would cover her expense.

I mentioned this to a good doctor friend of mine—who, by the way, is a very distinguished surgeon and one whose ability would entitle him to charge high fees—and he figuratively “hit the ceiling.” He said, “We are always saying that no deserving person ever goes without medical care because they are unable to pay for it. Here is a case which needs medical care badly, she is willing and able to pay a reasonable fee, but she must go without this care if she is required to pay a fee like that. This is just playing into Oscar Ewing’s hands.” . . . Fortunately, this case had a happy ending. An arrangement was made with another competent surgeon to do the work within the girl’s budget.

Such cases are exceptional, but they happen too often for comfort. We must never forget that the public remembers such cases long after it forgets about the thousands of other cases that get medical care at costs the patients can afford to pay, or at no cost at all.

The next most frequent criticism I hear is that doctors are becoming very independent, largely because of the amount of money they are making. People complain that it is often difficult and sometimes impossible to get a doctor outside of the usual eight-hour working day. It is charged that doctors “hole up” after 4:00 p.m. and refuse to answer the phone. That this is a criticism of some merit is indicated by the action taken by several medical societies to correct the situation. These societies maintain a twenty-four-hour telephone service and will locate a doctor for any person who calls to say that he is unable to find one.

It is not necessary to discuss the other criticisms that one hears occasionally—charges of fee-splitting, of rebates upon spectacles and other medical appliances, of restricting the number of medical students, and the like. There is not a man in this room who does not know that there are some dishonest men in the medical profession. However, having disposed of the criticisms by the general public, I have one of my own.

This is that too many physicians are failing in their duty to protect the voluntary health insurance plans from abuses. There is that curious defect in our moral code which makes it no sin

to defraud insurance companies—any kind of an insurance company.

Most Blue Cross plans, for obvious reasons, exclude hospital admission for diagnostic purposes from their benefits. Yet thousands of Blue Cross subscribers are sent to hospitals each month solely for x-ray or clinical laboratory examinations, or both. The Blue Cross form is executed to make it appear that the patient was hospitalized for treatment.

Even when the subscriber is admitted for bona fide treatment, thousands of unnecessary examinations and tests are ordered. Residents and interns are the principal offenders in this respect—since they want to impress their attending staff with their thorough work-up of patients—but too many attending physicians and surgeons are indifferent to this practice and make no effort to control it.

A good friend of mine, who is a senior attending physician in one of the better voluntary hospitals in this country—not in Chicago—recently told me that he had checked the charts of several hundred admissions to this hospital. “Routine blood chemistry” had been ordered for a large proportion of Blue Cross patients regardless of the cause of admission. When questioned about this, the resident replied, “Why not? It doesn’t cost them anything.” It is true that there are the occasional obscure cases in which all sorts of tests are justifiable in order to obtain a clue, but physical diagnosis has sunk to a low level when complete blood chemistries are necessary in a high proportion of cases.

This practice is entirely too prevalent. True, the individual patient does not pay out-of-pocket at once for these unnecessary procedures, but he *does* pay and so does every other Blue Cross subscriber. It isn’t much in one case, but, in the aggregate, it is costing Blue Cross subscribers millions of dollars annually.

I have selected an average Blue Cross plan with 100,000 subscribers to illustrate this point. In recent years, about 12,000 subscribers will be hospitalized during one year. This is too many, but this is what is happening. Each hospital admission costs every other subscriber of this plan seven one-hundredths of one cent. This is an insignificant sum. However, if this plan is required to hospitalize 13,000 in a year, or if the average stay in hospital is increased by one day, each subscriber must pay 70 cents more for his protection. This raises the family rate \$1.80. Since Blue

Cross nationally returns around 90 cents of each subscribers' dollar in direct benefits and adds only a penny or two to reserves, there is scarcely a Blue Cross plan in the country which can absorb this extra cost. The result is that rates must be raised.

Too many people—doctors included—seem to think that voluntary health insurance *lowers* the cost of medical care. It doesn't lower it one penny—it only spreads it; and, when we keep on spreading the costs of unnecessary medical care, we raise the cost of the protection to the point where we squeeze out the very people who need it most. When we squeeze enough of these people out, we will have compulsory health insurance—and who will be to blame?

As regards medical bills, there are still too many doctors who use insurance benefits as a platform upon which to erect an additional fee. For example, if the doctor would charge an uninsured person a fee of \$100, and he discovers that the patient is insured and that the insurance benefit is \$75, he will set his fee at \$125, \$150 or even \$175. While the number of physicians engaging in such practices may be small, it is still large enough to plague Blue Shield and to bring discredit upon the entire voluntary prepayment movement.

This brings us to the crux of this problem. Criticism, to be of full value, must be constructive. So, what are we going to do about such charges? Are we going to pursue our traditional course of ignoring them, of denying them, and of taking the position that none of us is his brother's keeper? This course has served the medical profession well for many centuries—but let's not forget that the medical profession has never been under such hot fire as it is today, and that our time-honored defenses, or lack of defenses, are beginning to show danger of failing us in this critical period.

After many years of negative action, the medical profession has recently adopted a policy of positive action—positive action externally, that is. It is now taking the offensive against the forces which would socialize medical care in this country. This is fine—but is it enough?

For one, I don't think it is. It is my considered opinion that, if we are going to win this fight, we must take positive action internally. What kind of action? Well, since I have had the temerity to point a spotlight at some of our vulnerable

points, I shall stick my neck out a little farther and tell you what I think we should do.

We have one tremendous advantage in that we can start with the knowledge that the vast majority of American doctors are honest, are able, place interest of their patients before their own interests. We must exploit this advantage to the fullest.

Second, we must remember that we are always judged by the company we keep. So long as honest and able physicians grant full professional fellowship to those who are guilty of bringing discredit upon the medical profession, or of giving it a bad reputation among the public, they must expect to be placed in the same class with the undesirable element. We have boasted for too many years that membership in the medical society is the medical profession's seal of approval upon a doctor. The public has been educated to believe this. Now we are stuck with it, which places us all in the position of condoning those practices to which the public is objecting, and of defending the small number of doctors who are alienating the friends of the medical profession.

Now, as to corrective measures for our own self-protection. The criticism of excessive fees should be the simplest of all to avoid. All that is necessary is that the doctor habitually discuss the fee with the patient *before*—not after—the treatment is begun, and *then*—not later—reach an agreement. I would defend to my last breath the right of a doctor to set a minimum fee of \$5,000 for an appendectomy. No one should presume to tell anyone—doctor or motor mechanic—what value he should place upon his services. The only justifiable restriction is that the price is understood before the services are rendered. There is not the slightest ground for complaint if the fee has been agreed upon before the patient is obligated. If no agreement can be reached, the patient is free to seek the service elsewhere.

Since time immemorial, prior discussion of fees has been regarded as somewhat undignified. I don't know why it should be. There is scarcely a man in this room who would not inquire of a lawyer what the cost of a legal action will be before he undertakes one. Such a practice does not smack of the market place or of the repair shop. Certainly the profession of law is as jealous of its dignity as any other profession—even though lawyers themselves are more prone to insult it than are doctors to offend against their own pro-

professional dignity. There is no necessity for bargaining with a patient—for haggling over price. All that is necessary is that the doctor inquire into the ability of the patient to pay, and to set his fee commensurately. If the patient objects, the matter is closed. But it is essential that this be done before rather than after the fact of treatment. After all, isn't it a little dishonest to wait until the patient can no longer decline the arrangement before confronting him with the charge?

More and more of the better men in medicine are adopting this practice of obtaining an agreement upon the fee before undertaking treatment. By this, I do not, of course, mean that the doctor contracts to cure a condition for a fixed fee, but he can tell the patient in advance what will be charged for each service rendered. This leaves the patient free to break off the arrangement whenever he feels that the total cost is too great. As for the surgeon, he can set his fee for the operation and for all anticipated after-care. He can inform the patient of the extent of the treatment covered, and that unforeseen complications or sequellae are another matter.

I know one surgeon-teacher who holds clinics with his senior medical students upon prior arrangement of fees. He tells me that, when he explains the purpose, he has no difficulty in obtaining the consent of patients, or the responsible members of their families, to the discussion of fees in the presence of three or four students. At this conference, the person responsible for the bill outlines his financial situation. The students, already aware of the nature of the operation, then retire and estimate the proper amount of the fee. This professor tells me that, in their first experiences, the students are prone to suggest outrageous fees—which may be reflections both upon the general concept of medical fees among the public and upon the motives of students of medicine. Some young men may choose medicine as a profession because they hope to get rich through its practice.

I recently heard of one surgeon who boasts that he always tells the patient before he operates what the fee will be—but that he leans over the cart to tell him as he is being wheeled into the operating room. Another variation came to my personal attention a few weeks ago. In a preliminary discussion, the surgeon and the patient had agreed upon the fee. Before entering the hospital, however, the patient received a letter from the surgeon

which stated that the fee must be paid in full 24 hours before the operation was done. I saw the letter. I suppose no one should criticize the business methods of anyone so long as they are not dishonest, but I can assure you that this patient was very annoyed and that this action won no friends for the medical profession.

I am convinced that the agreement upon fees before treatment is begun is a very important need in the public relations of the medical profession.

One move in the direction of resolving complaints over excessive fees has been made in several medical societies—both state and county. This is the appointment of a Grievance Committee to whom the patient may bring his complaint, whether it be a question of fee or a question of inadequate or improper service. While I feel very strongly that all disagreements over fees should be settled before rather than after the bill is rendered, there is a great field for Grievance Committees in improving the public relations of medicine. Whether or not the committee is able to be of assistance to the patient, it gives the patient much satisfaction merely to air his grievance—as every psychologist knows.

However, unless it is established firmly upon certain principles, a Grievance Committee can do the profession more harm than good. It can become a boomerang. It can invite the charge that it is a white-washing agency, operated only in the interest of the doctors themselves. The essential principles upon which an effective Grievance Committee can operate are:

1. The members must be selected with the greatest care. They must be men who are devoted to their profession, jealous of its reputation as well as of its prosperity. The selection of the membership of the committee must be upon an individual basis rather than upon an *ex officio* basis.

2. Tenure of office in the committee must be relatively long. The members must become familiar with the problems and learn the best ways of dealing with them.

3. Appointment to the committee should remove the member entirely from medical politics. He must be free to follow his best judgment without the fear of reprisal. His situation must be comparable to that of an appointed federal judge, rather than to that of an elected county judge.

4. With a few possible exceptions of local medical societies in large metropolitan areas, the Griev-

ance Committee should be an agency of the state medical association. I do not need to explain the impossibility of sitting in judgment upon a fellow-practitioner with whom one is called upon to associate frequently. We all know the futility of disciplinary programs in the average county medical society.

5. The committee should be large enough to permit of the disqualification of any member who is intimately acquainted with, or who resides and practices in the vicinity of, the physician called before the committee.

If these principles are observed, a Grievance Committee can be a great credit to the medical profession as well as a protector of the public. However, I repeat that the employment of such a committee is the method of second choice in dealing with disputes over fees. The great usefulness of a Grievance Committee lies in other fields of the public relations of medicine.

I have already touched upon the way in which some medical societies are dealing with the problem of obtaining a physician promptly at times outside of regular business hours. It is the finest kind of public relations to educate people to look to the local medical society for assistance. However, if the society has only a paper plan, or if it does not fully provide the service it professes to offer, this, too, can become a boomerang. My only suggestion for the improvement of the service of providing a physician in an emergency is that the society obtain agreement of each of its members to be available on a specified day or days of the month, and that such members religiously observe their commitments. Otherwise this is a hit or miss arrangement which is in constant danger of breaking down in a real emergency.

As to the protection of Blue Shield and Blue Cross, we either do it or we resign ourselves to socialized medicine. Almost everyone, including our opponents, is agreed that the only important barrier to the socialization of medical care is the successful operation of voluntary health insurance. This operation cannot be successful if the prepayment plans—whether commercial or voluntary nonprofit—are constantly milked for all the traffic will bear by thoughtless, or indifferent, or unscrupulous doctors. If the medical profession itself does not reverse the present trend—and fast—voluntary health insurance *will* fail because its cost will price it out of its most important market. When that happens, our goose is cooked. Doctors

are the only protectors of voluntary insurance. There are no others. Shall we see that they discharge this responsibility, or shall we permit the abuses to continue?

How do we go about getting the medical profession to protect voluntary insurance? First and foremost, we must arouse the profession to the critical danger to voluntary insurance. We must educate them upon the very basic principles of insurance. We must make them insurance conscious, so that their every move will be tempered with consideration of the effect upon voluntary insurance. This is not to suggest that the patient be denied a single essential service, but only that nonessential services be eliminated. Hospital staffs should be alert to abuses within their hospitals—abuses by staff members as well as abuses by residents and interns.

Second, we must be prepared to deal with constant offenders against voluntary insurance as we would deal with any other type of unethical practice which harms the medical profession. Regardless of the popular concept of morality, it is just as much of a sin, just as much of a crime, to bilk an insurance agency, as it is to defraud an individual citizen.

If the majority of doctors agree that certain practices are harmful to the medical profession, they must register their disapproval in a positive and public manner. They can do this only by limiting membership in professional societies to those who are a credit to the profession rather than a discredit. This is merely obedience to the law of self-preservation.

Let's never for a moment forget one fact—we cannot win this fight against socialized medicine for at least ten years, but we can lose it at any moment. Once it comes, it will be with us always—as is evidenced by the history of other countries. There is no retracing of steps toward Socialism. As you well know, the Conservative Party in Britain, during the pre-election campaign, promised to retain the National Health Scheme if elected.

We can postpone socialized medicine this year, but it will threaten again next year. Our only hope for defeating it for once and all lies in our searching for the causes of discontent, for our own vulnerable points, and removing them without further delay.

Only the medical profession itself can do this. We appreciate the necessity. We have the will. The only question is: do we have the courage?

Obesity—A Complication in Carcinoma Cervix Uteri

By R. C. Hildreth, M.D.
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THE FAT woman, before or after forty, has another one of life's burdens to bear when she develops cancer of the cervix. Since the general practitioner already recognizes the psychosomatic

five-year cure figures are available. A figure of 170 pounds was arbitrarily chosen since it is 20 per cent above the ideal weight for a woman 5 feet 7 inches in height as recorded in tables by Newburgh.⁴ Few women treatment patients exceed this height.

As to the number of women with cervix cancer who weigh over 170 pounds compared to the number weighing less than 170 pounds, we have resorted to a listing of 263 patients seen in our office between 1923 and 1949 (Tables II and III). Of cervix cancer cases seen in the twenty-six-year

TABLE I --- Classification and Survival Table for Obese Group -- 1936-1943
Cancer of Cervix Uteri

Year First Seen	Clinical Grade (Schmitz)					Broders					Living & Well 5 Yrs.	Dead	Total of Cases	Absolute 5 year Survival
	*	1	2	3	4	*	1	2	3	4				
1936			1	2				1	2		2	1	3	
1937			1	2		1		1	1			3	3	
1938				1	1			1	1			2	2	
1939				1	2			1	2		1	2	3	
1940				1	1	1			1			2	2	
1941				2				1	1		1	1	2	
1942		1	3	2	1			2	5		5	2	7	
1943			1	1				1	1			2	2	
					24					24	9	15	24	37.5%

* Unclassified or Adeno Carcinoma

factors of overeating so ever present in the obese woman, this discussion primarily points out difficulties in management of cervix carcinoma in that type of individual. Further interest is found in the effect of obesity on five-year survival figures.

Material

For ease of discussion and statistical review, we have analyzed twenty-four consecutive patients, who, when first seen, were over 170 pounds in weight (Table I). All had positive biopsy diagnosis of carcinoma of the cervix uteri. All were treated between the years 1936 and 1943, so that

From the Radiologic Office of Drs. Jackson, Hildreth, Volderauer, Pearson and Chrest.

period, 12 per cent weighed over 170 pounds when first seen.

The fact that obesity rose to 24 per cent in frequency between the years of 1936 and 1943 is of interest, but is unexplained.

Obesity as an added burden all too frequently raises its ugly head as a challenge to the radiotherapist.

Diagnosis

In the care of cervix cancer patients, complications of associated obesity appear in the first step of diagnosis. Is there a physician who hasn't thought to himself, "How will I ever get this fat woman onto the examination table?"

OBESITY IN CARCINOMA CERVIX UTERI—HILDRETH

Increased difficulties in performance of bimanual examination and other diagnostic pelvic procedures are factors which may throw some doubt on the accuracy of clinical classification of cervix lesions

Complications

In general, the more advanced one finds a disease at the time the patient is first seen, the more one anticipates complications. Cancer of the cervix

TABLE II --- Classification and Survival Table for Non-Obese Group -- 1936-1943

Cancer of Cervix Uteri

Year First Seen	Clinical Grade (Schmitz)					Broders					Living & Well 5 Yrs.	Dead	Total No. of Cases	Absolute 5 year Survival
	*	1	2	3	4	*	1	2	3	4				
1936				4	2	4		1	1		1	5	6	
1937	1			3	1	1		2	2		4	1	5	
1938		1	1	6	4	1		4	5	1	3	9	12	
1939	1		4	5	1	4		1	6		6	5	11	
1940			1	10	1	1	1	2	7		8	4	12	
1941			2	2	3			5	2		4	3	7	
1942			1	6	2	2		3	3	1	7	2	9	
1943	2		1	7	3	2	3	6	2		8	5	13	
				75						73	41	34	75	54.6%

* Unclassified or Adeno Carcinoma

in the obese. In both the obese and non-obese group, approximately 70 per cent of the cases were graded three or four by Schmitz' classification when first seen. Following thirty-six daily x-ray treatments, re-examination under anesthesia, used primarily for the purpose of applying radium, usually shows beginning regression of the neoplasm and marked decrease in secondary infection. Clinical classification is re-evaluated at this time.

Broders' method of microscopic differentiation or gradation of cancer is shown in Table III as making its appearance in 1933. The special group of fat women does not greatly vary in gradation from the total group as far as Broders' classification is concerned.

The factor of age, in its relation to the diagnosis of cervix cancer, reveals that half of all cases are discovered between the ages of forty and sixty. Again the important point that more than 20 per cent of cervix cancer is found in patients under the age of forty years is substantiated in review of the entire 263 cases. In age range, the average of the obese female group does not vary significantly from the non-obese.

is no exception to this rule. Improvement in preliminary diagnostic procedures, technical treatment factors and accurate dosage determinations have been extremely important to the radiologist in lowering overall cervix cancer complications. Clinical experience in the group of 263 cases has shown that a prolonged series of x-ray before radium application is one factor in cleaning infection from the neoplasm.³ Infection in a cancer makes the lesion much more radio-resistant. Infection often furnishes a supply depot for the formation of complications.

Fistulae are recorded in six cases in the total of 207 patients seen since 1936. Four of these were considered terminal affairs. Operative correction was successful in one of the other two, and this patient is living and well at four years.

Three cases had post-treatment complete bowel obstruction, two of which were terminal. True pyometria is still encountered in about 1 per cent of cervix cancer cases. Urinary complications, other than fistulae, occur in the form of hydro-nephrosis from ureteral obstruction. More frequent and early use of the intravenous urogram

OBESITY IN CARCINOMA CERVIX UTERI—HILDRETH

TABLE III --- Classification, Gradation and Absolute Survival Table for Carcinoma of the Cervix Uteri

Year First Seen	Clinical Grade (Schmitz)					Broders					Year of Death			Total Dead	Total No. of Cases	Absolute 5 year Survival
	**	1	2	3	4	*	1	2	3	4	Under 1 yr.	1-2 yr.	2-5 yr.			
1923	3	1	3	4		10					4	3		7	11	
1924	2		3			4					3	1		4	5	
1925	2	1	5	2		10					6	1	2	9	10	
1926	1	1	1			3					2	1		3	3	
1927															0	
1928	1		2			3					2	1		3	3	
1929			2			2					2			2	2	
1930		1				1									1	
1931			3	1		4					2	1		3	4	
1932		1	2	1		3					1	2		3	4	
1933			1	1		1		1			2			2	2	
1934	1	1	3					1	3		4			4	5	
1935		1	4	1				1	4	1	3	1		4	6	
														44	56	21.4%
1936			1	6	2	4		2	3		5	1		6	9	
1937	1	1	5	1		2		3	3			3	1	4	8	
1938		1	1	7	5	1		5	6	1	6	3	2	11	14	
1939		2		9	3	4		2	8		5	2		7	14	
1940			1	11	2	2	1	3	7		4	2		6	14	
1941			2	4	3			6	3		2	1	1	4	9	
1942		1	4	8	3	2		5	8	1	1	1	2	4	16	
1943	2		2	8	3	2	4	7	2		5	2		7	15	
														49	99	50.5%
1944	3		2	10	3	2	1	5	7	1	7	1		8	18	
1945	1		4	9	6	2	1	7	10		3	4	3	10	20	
1946	1		10	14	3	1	1	9	17		6	3		9	28	
1947		1	8	6	4			5	11	3	5	1		6	19	
1948	1	2	9	10	1			10	9	4				0	23	
														33	108	

Total 263

** Unclassified.

* Ungraded or Adenocarcinoma. About 5% in this series were Adenocarcinoma.

study has materially assisted in evaluation of urinary complications. Post-irradiation proctitis of slight or moderate degree occurs in about 10 per cent of cases. Although no severe post-irradiation proctitis cases are recorded, one anticipates a higher percentage of this pathologic condition in the obese patient due to the fact that accurate tumor dose calculation is more difficult.

Two diagnostic studies now routinely used for recognition of complications arising from irradiation overdosage are employed, namely, the performance of barium enema and intravenous urograms on all cervix cancers (as soon as possible after the diagnosis is made). Information obtained from these studies is often invaluable in later case care and evaluation of complications, especially in reference to blocking of a ureter or detection of post-irradiation rectal changes as much as a year or two later.

Complications following any type of treatment of disease as serious as cervix cancer, will always

be with us to a certain degree. Some assurance is found in the fact that complications are less common than they used to be. Also worthy of note is the fact that in none of the total of 263 cases did we find the irradiation type of treatment given, responsible for immediate cause of death. This is one very definite advantage that irradiation treatment gains over the surgical type of treatment for cancer of the cervix.

Treatment

Technical difficulties encountered in irradiation of the obese individual have caused the radiologist to adapt several special methods of treatment for this type of person, just as the surgeon needs to adjust his routine for the obese individual. Emphasis is placed on multiple divided x-ray doses. We prolong the treatments over a long period of time in the overweight individual. This aids one to deliver more irradiation into the tumor through the heavy layers of fat. A Holdfelder pressure

type of cone becomes of great value in the heavy person for it permits pressing aside several cms. of fat tissue which would otherwise cut down the percentage of surface dose reaching the tumor. A third technical factor often made use of is longer treatment distance.⁵ Since 1946, a 100 cm. target skin distance has been routinely used. Even though this causes the treatment to take four times the length of exposure necessary when one uses a 50 cm. target distance (forty-minute instead of ten-minute daily treatments), a better depth dose and a more uniform x-ray beam is obtained.

A fourth technical factor, now more or less routinely used by radiologists in heavy patients, is a slight increase in voltage and filter over and above the standard 200 kv.p., 1/2 mm. copper filter factors set up in the 1920's as "deep therapy." This also technically aids the deliverance of a greater amount of x-ray dose at the depth of the tumor.

The significance of individualization in dosage calculation and treatment of the cervix cancer patient can hardly be over-emphasized.² Such individualization is necessary not only in the obese woman, but also in cancer of the cervix stump. Whether stump cancer occurs some years following partial hysterectomy, as is commonly the case, or is present at the time of such a procedure, its successful treatment by irradiation has been greatly complicated. Proper irradiation dosage levels can seldom be obtained following removal of the body of the uterus since the receptacle for radium placement is absent. In addition, radiation effect is decreased because of surgical interference with the vascular bed to be irradiated.

The total irradiation dose that is actually delivered to the neoplasm has risen considerably as years have passed. Six patients treated before 1936, with seemingly small irradiation doses are living and well five years later. This indicates the variation in response of cancers to irradiation in different individuals. Although certain dosage standards are set up as being necessary for the sterilization of certain types of carcinomas, experience shows that some patients have their cancers cured with less than average amounts of irradiation.

In radium work, one is often permitted to take advantage of a slightly higher radium dosage when working in an above average diameter pelvis, because colpostat corks can be fitted farther away from the midline.¹ Frontal and lateral diagnostic

roentgenograms have been taken on all radium cases since 1936, and these are invaluable as an aid to determining proper radium dosage. If one anticipates approximately sixty hours of radium application, then diagnostic roentgenograms for position determination are usually taken at the twenty-four-hour interval.

There is the occasional case where radium is used before x-ray particularly when it is important to stop severe bleeding. Adequate biopsy is employed almost without discrimination, yet technical care in the handling of any neoplastic cervix is emphasized in this series of cases. Few cervixes were ever grasped with tenacula and none were ever dilated larger than 7 mm. in diameter for radium application.

Survival Statistics

Local community physicians have assisted the recording of survival figures in all reported cases. Table III shows absolute five-year survival figures of 21.4 per cent in cases before 1936 and 50.5 per cent survival figures in that group treated between 1936 and 1943. The great majority of this latter group had the advantage of adequate irradiation doses of both x-ray and radium, whereas only six cases reported prior to 1936 received radium treatment.

The obese group of twenty-four patients has a five-year survival rate of only 37.5 per cent as compared to a 54 per cent rate in the non-obese treated during the 1936-1943 time interval grouping.

The recording of year of death in Table III points to the importance of close patient follow-up observation during the twenty-four-month interval following treatment.

If the patient is free from clinical evidence of active pelvic neoplastic disease twenty-four months after treatment, the chances are high that she will be a five-year cure case. On the other hand, the clinical gradation of extent of the disease at the time the patient is first seen remains as the best prognostic criterion during the first year interval.

Difficulties in determining the extent of the disease in the obese is again mentioned. The gradual rising five-year cure percentage in cervix cancer treated by irradiation methods is encouraging and is partly due to the fact that the patient today reports to her physician earlier in the course of her disease.

(Continued on Page 1204)

Role of Anoxia and Dietary Deficiency in Various Clinical States Including Malignancy

A Preliminary Report

By E. A. Bicknell, M.D.

Detroit, Michigan

SINCE THE WAR, I have seen several severe cases of cirrhosis in women whose alcoholic intake seemed to me to be very moderate. There was severe anemia, often microcytic or normocytic. The only common factor was a diet grossly inadequate in all the quality factors. Deficiency of protein, minerals and vitamins was severe. Having recently written on the Rh factor and been intrigued by the anoxia of the brain in erythroblastosis, I could not help wondering if the dietary deficiency with its concomitant anemia might not be conditioning factors causing an anoxic state in the liver and making it peculiarly sensitive to hepatotoxins, especially alcohol, the liver disease in turn aggravating the anemia and forming a vicious circle.

Review of Literature on Anoxia, Experimental and Clinical

In a review of the literature I came upon the work of many men here and abroad on the effect of anoxia on the various tissues, but especially on the physiologically active glandular organs. For brevity, these are condensed below.

Boyd² proved that animals in a gas chamber with low oxygen tension get an atrophy and degeneration of the liver cells with no jaundice. Hepatotoxins are lacking.

Chaikoff et al⁵ caused cirrhosis in animals by continued high fat diets. Lillie¹⁸ showed it in rats on a low protein diet.

Gyorgy and Goldblatt¹⁴ caused liver degeneration and neuritic changes on a diet low in B complex but with added thiamin, riboflavin, and pyridoxin. Adding cystine hurried the origin of cirrhosis.

Daft, Sebrell, and Lillie⁶ confirmed this and showed it could be prevented by choline, methionine, or casein. They felt that cirrhosis in its first stage is a fatty infiltration which damages the liver cells mechanically, interfering with their nutrition

and oxygen supply. I think this is partially correct. It may also result from other deficiencies that favor fat deposition or deprive the liver cells of the elements needed for their metabolism.

Miller and Whipple²⁰ show that many alcoholics have polyneuritis, from B₁ lack, as well as having pellagra and anemia. These are due to other dietary deficiencies.

Patek and Post²¹ say that diets high in vitamins alleviated deficiencies and improved liver tone; diets improved by minerals and protein also help. Wohl²⁴ states that animals on diets low in protein and choline get cirrhosis, hemorrhage and necrosis of the liver; that diets low in K can cause hypoprothrombinemia, but he thinks it would be rare in humans.

Mueller and Rotter¹⁰ reported in 1942, anoxia states that showed liver changes.

Kritzler¹⁰ in 1944 showed the presence of fat free and glycogen free vacuoles in 27 cases of fatal high level anoxias and in CO poisoning too.

O. A. Trowell,¹⁰ of the University of Edinburgh, showed in classical experiments that *in vivo* vacuolization of the liver cells occurs if animals are bled enough to threaten life. If the animal dies of anoxia or asphyxia, vacuoles develop rapidly if the animal is not bled out. If the liver has more than a moderate amount of glycogen, this may not occur. This is shown in the rat, guinea pig and monkey. There must be pressure in the sinusoids, plus the anoxia for it to occur; raising the pressure augments the effect. He thinks that the anoxia affects the wall of the sinusoids to increase their permeability, allowing transfer of fluids; also that the vacuoles are a watery phase surrounded by a precipitation membrane from the rest of the cytoplasm, which is probably a viscous colloid solution. Saline in the bile canaliculi vacuolizes an anoxic cell, not a normal one.

R. E. Buck,³ in Salt Lake City in 1948, showed by biopsies, that alcoholic livers shown to be fatty, clear rapidly to normal with good diet and care. He felt that these were precirrhotic cirrhosis.

Joseph and Theodore Gillman,¹⁰ of Johannesburg, S.A., wrote very exhaustively on the effect of anoxia on the liver. Their work, and that of Trowell¹⁰ and the Air Force medics were unknown to me until I had suspected that anoxia might be a potent factor in cirrhosis. Trowell¹⁰ suggests that anoxic livers were the same as the livers of protein deficient animals. The Gillmans¹⁰ saw vacuolization of the liver cells in pellagra in 1945,

after fatal hemorrhage, CO poisoning, prussic acid poisoning, stillborns, and cases dying of severe trauma. There were vacuolized cells and plant-cell-like cells in the the same livers. They think that chemical changes must precede morphological changes. Enzymes may play a part. They examined 275 livers; some eighty-seven cases were posted, some within twenty minutes. The liver cells showed either vacuoles or a plant cell-like change. Mallory¹⁰ described this vacuole in 1911, Pappenheimer and Hawthorne¹⁰ in 1936, and Mueller and Rotter¹⁰ in 1942, Buchner and Pitchotka¹⁰ in 1942, Lądewig¹⁰ in 1943, and Kritzer¹⁰ in the heart, pancreas, eosinophils of the pituitary as well as the liver. Kidney cells had a watery swelling, and the capillary endothelial cells were swollen till the lumen was almost obliterated. After these changes may come necrosis. The previous changes may be reversible. Gillmans¹⁰ 275 cases were suicidal hanging, judicial hanging, throttling, Prussic acid, and CO poisoning, lightning, drowning, stabs of heart and great arteries, trauma, ruptured ectopics, and stillborns. These all showed changes they attributed to acute anoxia. Elman et al¹⁰ in 1943 produced in cats and dogs on a high CH, low protein, low fat diet, the plant cell type of change in the liver cells. Ashburne et al¹⁰ in 1943, showed vacuolization on prolonged diets to which sulphaguanidine had been added, often necrosis and arterial damage in the heart and other organs. Tannenburg,²³ in 1939, showed vacuolar changes in the heart, liver, and skeletal muscle cells in insulin shock in rabbits, also in the brain of rats. The Gillmans¹⁰ got, by biopsy, from the liver of pellagrins, plant cell changes similar to Elman's¹⁰ dogs. Dr. Hartman¹⁵ of Detroit showed the hepatotoxic effect of tannic acid on some livers in burn cases. The shock state of some cases may have laid the ground for the toxic action of the acid which ensued.

Meienburg and Snell¹⁹ reported forty-seven of fifty GIs from Jap prison camps showed liver changes from slight hepatitis to cirrhosis, all clearing with diet. This agrees with the work of the Gillmans,¹⁰ and Fernando, Mendoza, and Rajasuriya⁸ of Ceylon. Gillman¹⁰ says that 80 per cent of the native Bantu tribe have cirrhosis. They eat only maize and fermented milk as a rule. Burdette and Wilhelm,⁴ in 1946, reported oxygen uptake of slices of rat heart muscle in the terminal stages of prolonged severe hemorrhagic shock is less than normal in the absence of substrates. Pyruvate off-

sets this to a degree. Grieg¹³ in 1944 showed that anoxic tissue shows decreased ability to metabolize lactic acid.

J. L. Henderson¹⁶ reported a case of cirrhosis in a stillborn erythroblastic infant. I¹ suggested kernicterus as probably being anoxic. Zelman et al²⁵ reported a case of hepato-lenticular degeneration (Wilson's disease) successfully treated with Cytochrome C, an enzyme needed if O₂ is to be available to tissue. While it was given there was dramatic improvement, with reversal of many changes. Unfortunately, their supply was exhausted, and the patient relapsed and died. The autopsy showed the same changes shown by the high level anoxias of Kritzer¹⁰ and others, as well as the cases of the Gillmans¹⁰ listed above.

All these experiments, and clinical and autopsy reports emphasize the vital import of O₂ to living cells, especially the physiologically active parenchymal cells. The more highly specialized a cell is, the greater its need for O₂, and the less it can withstand O₂ lack. O₂ is needed to maintain its integrity, and for repair and regeneration. Normal physiological processes must be upset by O₂ lack long before morphological changes ensue. The similarity of tissue change in acute anoxia to that of deficiency states indicates that either the end result is the same from two different causes or that both instances are anoxias, the deficiency state in some way making O₂ unavailable to the tissue as with Cytochrome C lack in Wilson's disease as listed above.

The cases listed above by the various authors occurred in such extremes of nutrition as from the robust young aviators to the grossly deficient Bantus, and the American Jap prisoners. Gillmans¹⁰ thought the changes seen in acute anoxic deaths were duplicated in their Bantu cirrhotics and pellagrins, the latter of course being based on dietary deficiency.

Many of our deficiency and degenerative states may be connected with this same pattern. Deficient diet and other factors leading to cell changes could also conceivably lower our resistance to bacterial and virus diseases, and so derange our enzyme and hormone production that even malignant tumors of any body tissue might be produced or enhanced by it.

The failure of the liver and other glands to withstand anoxia as shown above fits the recent surge of work with cortisone and ACTH. Most of the diseases successfully linked with that new work and

many others, as coronary, et cetera, will, I feel, fit our thesis.

The adaptation theory of Selye also may only, or more easily, occur if the endocrines have been disturbed in function or structure by depletions as mentioned above. The liver being the factory for enzymes, protein, and other vital materials, is affected early, but has tremendous reserve and recuperative powers. It certainly takes a terrific beating from alcohol and other toxins in modern life, meanwhile being deprived of good protein in adequate amounts, iron and other minerals as well as various vitamins and other necessities. Even too much fat alone could so fill a cell, especially if there are inadequate lipotropic hormones available, that the cells function could be handicapped by mechanical means alone, just as a modern factory couldn't be 100 per cent efficient if it were cluttered and crowded.

The arthritides, rheumatic fever, acute glomerular nephritis, and many other diseases may be conditioned by dietary deficiency by direct effect on the joint or other tissues, and indirectly by its effect on the endocrines and other organs. The possibility that these diseases are akin to cirrhosis, with first a depletion of the cells, and then some arthro toxin, renal toxic, et cetera, instead of a hepato toxin, seems probable, especially a strepto toxin, in rheumatic fever, for instance, plus the associated disturbance of the body generally, especially the liver and endocrines.

Thyrotoxicosis may be due to dietary deficiency affecting both the pituitary and thyroid glands, especially, plus specific lack of iodine and added goitrogenic substances; similarly, diabetes may be due to dietary deficiency affecting primarily the pituitary and pancreas.

Pernicious anemia and many of our degenerative brain and cord diseases could have deficiency as their origin. Acute coronary heart disease seems simple when we realize how soon heart and coronary cells are impaired by anoxia, and that the available oxygen may not be as readily picked up by the affected cells. Tobacco, by vasospasm, may also contribute in further reducing the O_2 available. The damaged intima seems an ideal place for thrombosis to begin. This anoxia is induced by so much demand for O_2 that the coronary vessel, if its caliber is reduced, cannot allow enough blood to the overworked muscle. Increased work increases the need for O_2 , and when a certain point is reached, a deficit of O_2

must occur and become increasingly great. The fact that an anoxic heart muscle does not pick up the available O_2 as well as normal muscle aggravates this and we have a spiralling action which causes many acute coronaries. The shock incident to the pain aggravates the anoxia by the ensuing poor circulation. The work of the heart is reduced, but so is the available O_2 . I saw a man, unconscious with an acute coronary, relieved by morphine within minutes of the onset, who never developed thrombosis. He demanded to leave the hospital and apparently escaped unscathed.

The above discussed diseases, and many others, may be due to conditioning of certain cells of the body by deficiency states which seem to be akin to anoxia. They are further insulted in their weakened state by toxins, endogenous, metabolic, or exogenous, such as metals, bacterial, fungal, viral, rickettsial, yeast, mold, or any other toxic substance. Even our own hormones may be toxic.

The deficiency may be in protein, minerals, vitamins, or specific substances known, like lipotropic hormones, or the extrinsic E.M. factor, Cytochrome C, or still unknown essential materials.

There may be faulty absorption, digestion, or transportation of the foods which would result in a deficiency with an otherwise adequate diet. Anything interfering with blood formation, circulation, local or general, oxidation, or its availability to the tissues (as Cytochrome C lack in Wilson's disease), or CO poisoning, or prussic acid, et cetera, or mechanical factors impeding cell function, i.e., sclerosed or spastic vessels, hemorrhagic states including acute and chronic blood loss, could produce a deficiency; obesity might possibly induce the same effect by extra- or intra-cellular crowding, as in the fatty liver.

These above-listed factors may be minimal, or they may be severe enough to threaten life or cause death.

Recovery may be apparently 100 per cent complete from such severe short anoxic states as those in survivors of drowning or lightning.

The added insult to depleted cells of toxins, exogenous or endogenous or hormones, may cause fatal, severe, or minimal damage to the tissues, often on a selective basis. These cells may be more susceptible to bacteria, virus or other invaders, such as pneumonia, the common cold, or polio, et cetera. Malignant degeneration might also occur due to these factors, or at least be precipitated earlier than it would otherwise be.

One difference between the cells of cancer and normal cells is that the latter live in physiological restraint, like a motor with a governor. A cancer cell might only be a formerly normal cell weakened by some deficiency of itself and/or some of the organs which produce regulating hormones or enzymes, and which is further insulted by some carcinogen such as tar, et cetera. A severe depletion might require less carcinogen and vice versa. A cell so goaded might break the physiological barriers that restrain it and revert toward some primitive cell ancestor with the basic urge to grow and reproduce itself uppermost in its life. The repeated bombardment of the estrogens, for instance, might upset the balance. They are growth hormones, not true sex hormones. The further the cells regress, the higher the grade of malignancy might be. The late Dr. Goodell,¹¹ of McGill University, reported cases at the Ontario Medical Association meeting in 1947 that he felt were due to excessive administration of estrogen. The fact that the liver detoxifies coal tar and other toxins has been shown by Lazerow.¹⁷ That estrogens are also rendered innocuous in the liver is generally conceded. These facts may, when the liver is depleted, cause a piling up of estrogen or other carcinogen in the organism by its failure to detoxify them. A depleted cell in a depleted organism may require lesser amounts of carcinogens to become malignant. The greater frequency of malignancy in the older age group may be due to poorer nutrition because of poor circulation through sclerosed vessels, which produces tissue anoxia, plus the fact that they require less, eat less, and digest less with advancing years.

Is cancer inherited? I feel that cancer, like obesity, may not be in itself inherited, but may be engendered by acquired faulty familial eating habits from which once a pattern is established, there is little tendency to deviate. Certain familial strains may require less depletion or carcinogen, as in Dr. Clarence Cook Little's strains of mice.

Having been in medical school in 1917, I have seen medical trends for nearly a third of a century, and I have felt for some time that certain diseases were definitely on the increase. I would list as among these occurring at an earlier age, and as being fatal earlier than when I was a boy, hypertensive diseases, malignancy, possibly polio, and also many others.

The only explanation I can find for this is our changing habits of living, especially among city

dwellers. Our caloric needs have dropped precipitously from those of our fathers. I believe that men like Franklin, Washington, Lincoln, Osler, and others, burned and hence consumed, huge quantities of calories, which helped develop sound minds and bodies, and that from such as they have come some of our rarest heritages. Living in heated houses, with indoor plumbing, is a far cry from our youth. The healthy effect of exercise in the open air has been largely forgotten or ignored. Even cars are heated, and used on the least provocation. From the lack of exercise, and lack of radiation, we need so few calories that if they are not chosen wisely, we are certain to have deficiencies. The average American is very unwise in the choice of foods. We consume huge amounts of highly refined foods such as sugars, also our tastes run to popcorn, peanuts, potato chips, pretzels, candy of all sorts, eaten by the ton, and such food-sparing beverages as coke, beer, wine, and spirits. These facts speak for themselves. Few of us are active enough to create such a need for food that we can afford to eat and drink such trash. A figure-conscious female will often eat less than 1,000 calories a day. Often half of this is in the above list. Hence their diet will be grossly deficient in protein, minerals and vitamins. All their body organs must suffer, especially the liver. They are no better off than the Bantus (white Bantus, as it were). If these livers were biopsied, I'm sure they would reveal what the Gillmans¹⁰ found in the natives. Wealthy clubmen, eating large steaks and plenty of sea food, rarely are cirrhotic, even with huge alcohol consumption.

I feel very strongly that these dietary deficiencies may condition our tissues for subsequent ravages of toxins, such as dietary deficiency plus alcohol leading to cirrhosis, and dietary deficiency plus streptococcal toxins leading to atropic arthritis or rheumatic fever. The deficiency must be generalized in its effect, and the effect on the liver and the endocrines, et cetera, may have an additional effect on the joint, and other areas bearing the brunt of the particular disease. The recent work with ACTH and cortisone exemplifies this. In rheumatic fever, for instance, the joint tissues, the subcutaneous nodes, the Aschoff bodies, and other areas involved, may be the spots that are conditioned by the deficiency, and then later ravaged by the toxin. This is demonstrated by the nodes described by Freund et al⁹ in rheumatoid arthritis.

That carcinoma can occur in similarly conditioned tissues which are later exposed to adequate amounts of carcinogens, seems tenable. Thus stomach tissue, rendered deficient and then exposed to irritants—thermal, chemical, and hormonal—would be more susceptible to malignancy when the liver and endocrines have also been weakened by dietary deficiencies. Similarly, smoking could lead to lung and oral cancer in depleted persons.

Leukemias, acute and chronic, lymphomas, et cetera, may be similarly caused, and may be regressions of bone marrow cells, the acute being like grades 3 and 4 cancer, and the chronic like grades 1 and 2.

The very important work done by Dr. Greene of Yale U. on the transplant of malignant cells into the pig's eye, agrees with my theory. The fact that a nondescript mass of malignant cells may grow in the eye and recover enough of their previous characteristics to be identifiable as thyroid, pancreas, et cetera, is, I believe, a reversal of carcinomatous change, probably induced by improved conditions in the pig's eye. Chemicals, enzymes, hormones, et cetera, seem to be trying to re-establish physiologically normal cells. What these substances are should be identifiable by our brilliant chemists and physiologists. The fact that certain non-malignant tumors and fetal tissue will grow in the pig's eye, and adult normal tissue will not, is further evidence that cancer cells are only adult cells reverted toward a primitive cell ancestor, with fetal tissue ranging somewhere in between.

The recent work on the effect of tapeworm exchanged between cat and rat finally embedding in the rat liver, reported by Dr. W. F. Dunning,⁷ shows that if the liver is only minimally affected with one or two larvae, the rat survives as long as two years. If 100 larvae enter, the rat dies before carcinoma can develop. If an intermediate number of parasites enter the liver, cancer will kill the rat in eight to twenty months. If the lesions are surgically removed from the liver, washed and injected into the peritoneal cavity, cancer develops in the adjacent organs. This only proves that this is a potent carcinogen and that liver destruction may augment it. The parasites affect only certain strains of rats but all cats seem to be able to help carry on the cycle.

Chronic infection of the cervix and prostate in depleted people, may leave these glands susceptible to malignant degeneration. There may

be carcinogenic action in some of the bacterial toxins to which they are constantly exposed. Hormone bombardment probably also plays a part.

What can we do to turn the tide?

Everyone must be alerted to the dangers of these trends. We must burn up more energy so that we can consume more food without becoming obese. We must choose our foods more wisely. Dietary dubs must be corrected, and food faddists converted to saner habits. This should be on a national basis.

What we need is not the fair deal nor the square deal, but the old deal and the square meal that goes with it. We shouldn't ask for security from the cradle to the grave (or from the womb to the tomb), as Dr. Andy Hall of Mt. Vernon, Illinois, says), as much as we should ask for opportunity from the cradle to the grave. This could increase our span. That our increasing longevity is based more on success in treatment of infections, contagions, and in infant welfare, than on conquest of the degenerative diseases, is well known to all medics. We are being killed with kindness; we are pampered too much. Work should be a privilege not to be lightly discarded. Workers should be retired on their physical, not calendar age. Many a farmer in his seventies is physically healthier than a city dweller of fifty. This is often illustrated by the untimely end of a formerly active man, without any hobby, who retires to inactivity. Men who eat well and who have no chronic disease will not be injured by hard labor; often the reverse is true. It isn't that golf is injurious to a businessman, but it is physical degeneration plus overexertion that causes so many untimely ends.

The nerve tension that is developed in our modern city dweller, with poor dietary habits and sedentary living, is aggravated by our high-g geared existence, which engenders nervous indigestion, depriving us of still more of the good in our diet. The strength of the Russian people and other northern races, may come largely by accident of geography, in which the climate causes the need for greater consumption of food.

If we can learn to so live that we work, play, and eat better, we will approach the Utopia of a "sound mind in a sound body," where all worldly differences could disappear, and "nation would not lift up sword against nation, neither would they learn war any more," but man's longevity could be spared for service to God and mankind, which is the divine plan of the Great Physician.

Treatment

Firstly, a diet adequate in protein, especially lean meat, fish, poultry, cheese, milk and eggs, green vegetables and fresh fruit. Nothing further need be added unless the need for calories warrants additions without producing obesity. In cases of obesity, weight reduction is instituted without reducing the protein intake.

Secondly, increase the need for food by increasing caloric requirement by the use of exercise and exposure to fresh cold air, thereby increasing radiation by sleeping in cool bedrooms, driving with car ventilators open, and outdoor exercise daily. I prescribe two hours walking outdoors or its equivalent.

Thirdly, so living that we have peace in our souls and are the masters of our destinies. Religion freely professed and practiced is the best preventive of nerve tension I know of. A glass of spirits at the end of the working day and rest, relaxation and peace before and during meals will help prevent nervous indigestion. Adequate rest and sleep and more vacations entailing outdoor exercise should be provided.

Fourthly, avoidance of known carcinogens as the estrogens and allied substances, tars, chronic infections, chronic irritation, mechanical, thermal or radiant, especially in depleted persons, or persons with good soil for malignancy, such as proven by family history.

Fifthly, use of any measures such as surgery or antagonistic hormones to remove or lessen the malignant activity.

These measures apply by-and-large to other degenerative diseases; also other specific measures we now know in diabetes, hypertensive cardiovascular renal disease, and many others should be used.

Sixthly, crude liver intramuscularly may supply some of the elements missing, so I give it too. I have cases under observation now who seem to bear this out, but it is too early to report, although one person with cancer of the prostate, seen and concurred in diagnosis by three competent urologists and declared inoperable, is well after four years, with no obstruction, and has had no operation, and is in excellent health.

Also, a woman with inoperable cancer of the breast, bedridden, and in great pain from bony metastases seven months ago, now walks a mile to my office twice a week. She feels fine, is free from pain, and is optimistic about the future.

Synopsis

Many clinicians and laboratory workers have shown that acute anoxia of severe or fatal degree produces morphological changes in body cells, especially in the parenchymal organs. Similar changes have been shown in deficiency states both by biopsy and autopsy.

Dietary deficiency plus alcohol or other hepatotoxin can produce cirrhosis.

Other clinical states including malignancy can be induced in depleted tissues which are insulted by carcinogens. Depleted tissues might require less carcinogen to produce cancer, and huge amounts of carcinogen might require only minimal depletion.

The depletion of the liver and the endocrines may augment this by failure to detoxify carcinogens and/or elaborate protective substances which might vitiate the process.

That this could occur in diabetes, cardiovascular renal disease and many other states seems self-evident. Further work is needed to elaborate and evaluate this.

Conclusion

Anoxia and dietary deficiencies may lead to the same end. The importance of O₂ lack to our whole being may be the answer to many deficiency diseases, and carcinoma itself may be only an escape of some of our own body cells from physiological restraint in response to stimulation of carcinogens on depleted tissues. The liver and the endocrines, being similarly depleted, may augment this by failure to detoxify carcinogens and/or elaborate protective substances which might have held the goaded cell in its physiological equilibrium.

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Can Cancer Be an Inherited Family Disease?

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STATISTICIANS insist that the occurrence of cancer families is purely coincidental, that multiple instances in a family are no more frequent than the law of probability permits. They arrive at figures considered for the whole population of human beings. One cannot help but wonder how such small percentages of the whole can be reliable; moreover, their premise is based on vital statistics obtained for the most part from clinical evidence which is conceded to be grossly inadequate and erroneous.

The story of *bilateral* cancer of the breast in a mother and two daughters and recently a granddaughter (third generation, a daughter of one of the two daughters with breast cancer) is reported.

Case 1.—The mother, not our patient, at the age of forty-five had a tumor of the left breast for which she had a radical resection. (Seven years later she was operated upon for tumor of the uterus, presumably a fibroid.) Then two years later, or nine years after the left breast operation, she had a "lump in the right breast and armpit." For this no operation was done. She died two and one-half years later and it was thought that the cancerous condition had been spread to the brain.

Case 2.—The first daughter, at the age of twenty-six, came to our attention in October, 1916, with a lump in the *left breast* first noticed two months before. It was located at 3 o'clock, the size of a hickory nut, rather sharply defined and with no skin signs. It proved to be a medullary carcinoma, with no extension to the lymph nodes.

(In 1931, fifteen years after the breast surgery, she had a hysterectomy for a trouble-making fibroid.)

The last check-up examination was eighteen years after the breast surgery. She had no complaints. The clinical examination was negative.

A year and eight months after the last check-up examination, then twenty years after the left breast surgery, she reported a small lump in the *right breast* picked up three weeks before. It was located at 2 o'clock. It lay rather deep, no skin signs and again about the size of a jumbo hickory nut but not sharply circumscribed. General health was good. The clinical examination was negative. X-ray studies of the chest and skeletal system were negative. This lump proved to be a scirrhous carcinoma; again no metastasis to the lymph nodes was reported.

Patient now lived out of town and did not report

until fourteen months later with a story of severe backache low down in the lumbar region. X-ray studies disclosed metastatic lesions in the third and fourth cervical vertebrae and in the bony structures of the pelvis. X-ray of the chest was negative. This was, of course, the beginning of the end.

Case 3.—The second daughter, aged thirty-nine, came in October, 1938, to report the discovery of a bunch in the *left breast* on which she wanted an opinion. She was cancer conscious because her sister had recently died of cancer of the breast. (Take note of her being cancer conscious in view of subsequent events.) The bunch in the breast was, as it was in the case of her sister, at 3 o'clock, the size of a hazel nut. Frozen section examination proved it to be malignant. A radical operation was done; axillary nodes grossly not malignant. Laboratory report, "Sections show carcinoma partly medullary and partly scirrhous infiltrating the fat tissue. No lymph node extension."

(In April, 1942, three years following the breast surgery, she was operated upon for a large fibroid uterus.)

In June, 1948, nine years after the first breast operation, she came in to report that six months before she had noticed a bunch in the *right breast*. She had not reported for follow-up examination for six years because of negligence, and now she had procrastinated, for a period of six months, to report a tumor in the opposite breast. Such behavior in an educated person is not understandable in view of what had gone before. Examination disclosed a bunch in the *right breast* at 2 o'clock, the identical site of the second tumor in the case of her sister. It was a bit irregular, the size of a split golf ball, with one palpable axillary node. No other objective clinical evidence of extension. X-ray studies of the chest and osseous system were negative for evidence of metastasis. A radical operation was carried out. Pathological diagnosis: adenocarcinoma of breast; metastatic carcinoma of axillary nodes.

The report at eleven months following operation was that the appetite was not up to normal, pelvic discomfort and aching in the neck and coughed some. The examination at this time revealed definite changes in the right chest, diminished breath sounds, dullness. X-ray study reported "fluid in the pleural cavity with increase in hilar areas that suggest metastasis to the lungs. Multiple lytic areas in the region of the ischial tuberosity on the left side which are suggestive of metastasis."

Three months later in addition to symptoms and signs of chest involvement the right lobe of the liver was found to be enlarged. She was on a downward course. She was given Testosterone resulting in some subjective improvement but objectively the changes were progressive. She expired on October 24, 1949, sixteen months after discovery of the tumor.

Case 4.—Recently a daughter of the first daughter, aged thirty-six, had a breast carcinoma, also of the *left breast*, again at 3 o'clock, with axillary metastasis. (This granddaughter has also a fibroid uterus.)

Discussion

Here we have a mother and 2 daughters with *bilateral* carcinoma of the breast. In each instance the sequence was identical, left breast-right breast; left breast-right breast; left breast-right breast; and in the daughters *the exact sites also were identical*. The granddaughter, aged thirty-six, had a tumor, again in the *left breast*, also at 3 o'clock.

The mother and two daughters had a fibroid uterus, and the granddaughter has a fibroid uterus.

The only family history obtainable is that the mother's mother and two of her brothers were said to have had cancer; more than this is not known.

Such data is, of course, not reliable. Few know what their grandparents or other remote ancestors died of. While there is no support in the family history obtainable to make a case for inheritance, there might be, in fact, abundant evidence.

The most striking and convincing evidence of heredity playing a part in the occurrence of cancer is a study of identical twins. Macklin found that when one uniovular twin has a tumor, the other will have one in 60.4 per cent of cases, and they usually are similar and in the same location.

A well-known example of a cancer family is the family G of Warthin, which starts with a father of a family who died of gastrointestinal cancer. Of the next generation six of ten members over twenty-five died of cancer. Of the third generation twenty-seven out of sixty-four members over twenty-five developed cancer. The location of these cancers were not varied, as occurs in the general population, but they were almost completely confined to the gastrointestinal tract and uterus, which brings out the significance of that which is well understood today, namely, organ or system susceptibility as well as general susceptibility. Warthin, in his studies, conclude that a definite and marked susceptibility to cancer exists in certain families and family generations.

The retinoblastoma of young children as it occurred in families in the earlier days was thought to be a sporadic occurrence. Now it is considered definitely as hereditary.

The neurofibroma is another neoplasm that is regarded as hereditary.

There is a great deal of evidence that carcinoma of the breast, cervix and rectum carry inheritance factors.

Polyposis of the large intestine is known to

be often hereditary and to have a definite tendency to become malignant.

The writer recently examined a woman patient who had a blue-black mole on the forearm. When told of its potentiality, she said, "My sister who is here with me has one and my mother also, and all in the identical location." It is impossible to believe that such instances do not represent some hereditary factor in the germplasm which acted as a determiner for these lesions.

In some individuals there appears to be a marked predisposition to cancer. A cure of a neoplasm in one organ may years afterward be followed by a primary malignant growth in some other organ. Thirteen years ago the writer operated upon a patient, aged fifty-one, for a large mass in the pelvis that proved to be an adenocarcinoma of the uterus and a papillary adenocarcinoma of the ovary. Surgical cleaning out of the pelvis followed by x-ray therapy has resulted in a now thirteen-year "cure." Ten years after the pelvic surgery a lump was discovered in the right breast that proved to be malignant. She had then three definite independent primary malignant tumors, and she had this family history. The mother, two sisters and a brother had cancer.

Whenever a tumor in the opposite breast becomes manifest, the question of it being secondary to the cancer of the other breast or whether it is a primary growth naturally comes to mind. Recurrences after fifteen, twenty or twenty-five years are known, which brings up the question of cancer inactivation or inhibition that in some patients holds the growth in check, and then for some reason it is lost, allowing the cells to grow. Long periods of inactivity may occur even in such malignant growths as the melanomas. Theoretically involvement of the opposite breast, in the cases here presented, could have been secondary together with those of the more remote parts such as finally appeared in the skeletal system, chest and liver. It is not possible to be certain in any case, yet if the interval is of well over five years duration, especially so, if there is no evidence of secondaries, it is generally held that one is dealing with another primary.

It is not too unusual for a second primary to develop in the opposite breast. Foote and Stewart state that "the most common pre-cancerous lesion of the left breast is a cancer of the right breast and vice versa."

In all four cases reported growth had started

under the age of forty-five; the mother was forty-five when the growth was first discovered and, in all likelihood, it had been there for some time; the other ages were twenty-six, thirty-nine and thirty-six—in other words, three under forty. Breast cancer under forty is considered to be an expression of intensive estrogenic activity and high susceptibility of breast tissue involvement. There is said to be relationship between intensive estrogenic activity and pelvic pathology, benign or malignant. All four had a fibroid uterus.

The mother and two daughters had five-year "cures." More exactly, nine years each for the mother and one daughter, and twenty years for the other daughter. After the appearance of the opposite breast involvement in all three cases, growth was rapid and extensive. The mother was thought to have extension to the brain.

The first daughter succumbed sixteen months after discovery of involvement of the second breast; eighteen months for the second daughter; two and one-half years for the mother.

The two daughters and granddaughter were breast fed, most likely the mother also. This brings up the question of the milk factor.

Summary

Three definite cases of *bilateral* breast cancer in a mother and two daughters and now cancer of the breast in the third generation is reported.

In each instance the sequence was identical, left breast-right breast; left breast-right breast; left breast-right breast. In the daughters *the exact sites also were identical*, 2 o'clock-3 o'clock; 2 o'clock-3 o'clock. (The sequence might have been the same in the mother.) The granddaughter, aged thirty-six, had a tumor, again in the left breast, also at 2 o'clock.

The occurrence of primary tumors not only in the same tissue or organs but in the same sequence and exact sites as did occur in the cases reported coincides with the behavior of tumors in identical twins. Tumors in identical twins offer the most convincing evidence we have of heredity playing a part in the appearance of cancer.

If tumors are of genetic origin in twins, they may be of the same origin in others.

The mother and two daughters had a fibroid uterus, and the granddaughter has a fibroid uterus.

The cases reported give evidence in support of inherited family disease but are not proof. Never-

theless, it is such experiences that keep bringing to one's attention the probable genetic origin of cancer.

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The American people would not now accept socialism as a substitute for our American democracy. However, there still is much confusion in the minds of the public and of many physicians as to the importance of the so-called fringe bills. For the past fifteen years the American people have been conditioned to the gradual growth of welfare projects not only in medicine but in other fields of attempted economic planning, which historically in other nations have always ended in economic dictatorship. Economic planning and welfare projects have been promoted as devious alternative measures in preference to meeting economic and social difficulties on the basis of individual responsibility and incentive of each citizen.—Address by E. E. IRONS, AMA President.

Rationale of Therapy of Blood Diseases

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IT IS BASIC to have a knowledge of the vascular factors involved in hemostasis and of the mechanism of blood coagulation in order to intelligently treat hemorrhagic diseases. Unfortunately at present, however, we know little of the vascular factors involved in the control of bleeding.* This is largely because it is difficult to study capillary wall experimentally.** With regard to the mechanism of blood coagulation, however, there is considerable knowledge.† The almost universally accepted view, at present, of the mechanism of blood coagulation is depicted below:

- (A) Prothrombin + thromboplastin + calcium⁺⁺
+ AC globulin → thrombin
(B) Thrombin + fibrinogen → fibrin

Let us briefly consider the components of the above reactions and observe how the commonly used anticoagulant drugs (dicumarol and heparin) exert their effect in the above reactions in the control of thromboembolic disease.

1. Prothrombin is a protein made in the liver and fat-soluble vitamin K is essential for its synthesis.
2. Thromboplastin§, present in all tissues, lung and brain being especially rich sources, is also formed as a result of disintegration of blood platelets.
3. Calcium ions are always present in normal blood.
4. Ac globulin‡ is a protein and is essential for reaction A to occur.
5. Thrombin is formed as a result of reaction

*Except for some knowledge of the relationship of the spleen to "idiopathic thrombocytopenic purpura" and of allergic causes for some forms of purpura, little is known regarding the causes of purpura.

**There is evidence that vitamin P has some antihemorrhagic quality in certain diseases associated with increased capillary fragility. Rutin, prepared from green buckwheat, has been used as a source of this antihemorrhagic factor.

†Blood coagulation phylogenetically is a third line of defense in the control of bleeding, the first and second lines of defense being vascular contraction and agglutination of cells.

§In Quick's prothrombin test thromboplastin is obtained from suspension of rabbit brain. There are said to be two classes of thromboplastic substances: (a) cephalin and lecithin, (b) lipoproteins.

‡Ac globulin has this clinical significance. When there is a prolonged prothrombin time and no clinical evidence (cirrhosis, obstructive jaundice, et cetera) to suggest prothrombin deficiency, the possibility of Ac globulin deficiency needs to be considered.

A and is normally antagonized by an antithrombin component of the serum albumin.

6. Fibrinogen is a protein made in the liver and is present in normal blood.

Dicumarol and vitamin K are physiologically antagonistic substances. Vitamin K is essential for the production of prothrombin, and since dicumarol inhibits the action of vitamin K, when sufficient quantities of dicumarol are given, prothrombin is not formed and blood coagulation is retarded or does not occur. Vitamin K is normally ingested in food, and is also normally formed by intestinal bacteria. It is imperative, however, that bile be present in the bowel for vitamin K to be absorbed from the intestine.

When excessive amounts of dicumarol have been administered to a patient, large quantities of vitamin K therapeutically are indicated; but because it often takes several hours for the vitamin K to counteract the effect of the dicumarol, transfusion with blood†† or plasma to supply prothrombin should be given immediately as emergency treatment, and the vitamin K in addition.

Heparin,° made in the liver, is an antithrombin substance, but when mixed with serum or plasma is more antithrombic than heparin or serum alone. It is believed that heparin combines with an antithrombin component of the serum to form a more active antithrombin substance, thus neutralizing thrombin after it is produced as a result of reaction A. In the presence of plasma, heparin appears to have also an antithrombin and antithromboplastin effect.

It is basic also to have a knowledge of the factors involved in erythrocyte formation, of their destruction and separation from the blood in order to intelligently treat anemias. Thus one should remember, that there are many causes of anemia aside from disturbances in the maturation of the red blood cell. These disturbances range from and include hereditary traits (as the sickling trait in ten to twelve per cent of negro people); hemorrhage; replacement of bone marrow which has to do with production of red blood cells by fibrous tissue, cartilage, bone or neoplastic metastatic tissue; the effect of toxins, whether exogenous or endogenous (chemical or bacterial), on bone

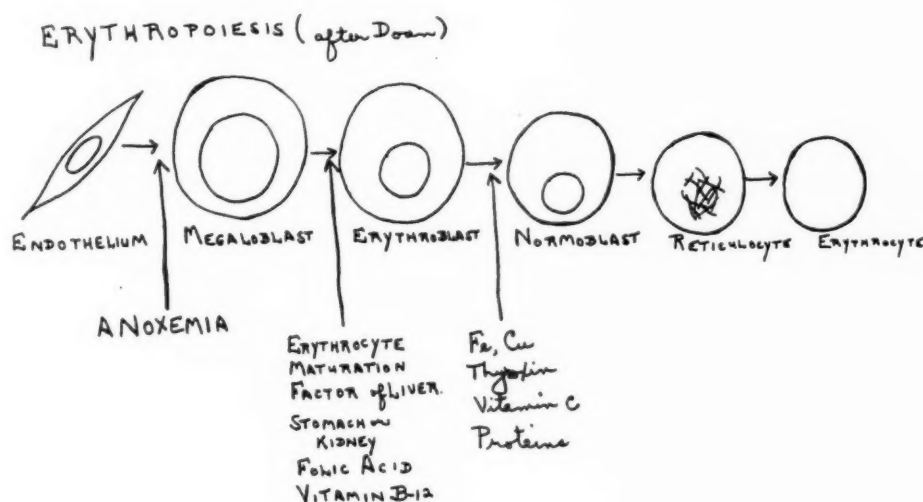
††The blood or plasma should be fresh because there is some loss of prothrombin on standing. Whole blood is better than plasma.

°Toluidine blue and protamine are said to have an antiheparin effect. Protamine is a simple protein with basic properties, combines with heparin, the resulting compound being free from anticoagulant action.

marrow as to hinder erythropoiesis; to the loss by the spleen of its "power to distinguish" normal from damaged or old red blood cells, with resultant hypersplenism.* Disturbances in the normal

liver of this substance to hemopoietic tissues and its utilization by these tissues in producing blood.**

Folic acid (pteroyl glutamic acid) contains the anti-anemic principle but lacks some substance es-



maturation of the red blood cell are of course of vast importance in causing anemia and need to be understood in order to treat intelligently anemia resulting from these disturbances. Below diagrammatically are shown various stages in the development of the red blood cell. The stages at which our treatments exert their effect in normal erythrocyte maturation are shown in Figure 1.

Liver extract contains an erythrocyte maturation factor essential at the stage indicated in Figure 1, i.e., to enable the megaloblast to mature to erythroblast. It is not effective in any other stage and apparently is unnecessary therapy when maturation has proceeded to the erythroblast stage. It is now generally believed that at least five factors are involved in the production and use of substances necessary for the prevention of pernicious anemia—the extrinsic factor is ingested in food, the intrinsic factor contained in and secreted into the gastric juice, the interaction of these substances in the gastrointestinal tract to produce an anti-anemic substance absorbed by the bowel, the storage and perhaps further modification by the liver of this antianemic substance, and the release by the

essential to prevent or control nervous system findings, et cetera, other than anemia which are often also an integral part of the pathology of pernicious anemia.

Vitamin B₁₂ (a cobalt-containing substance) contains the erythrocyte maturation factor but apparently in addition can prevent and control the nervous system findings, etc., in pernicious anemia.

Iron exerts its effect in the phase of maturation of the erythroblast to normoblast. It is of no value in other phases. Iron is probably acted on in the stomach, a chloride salt being formed, and is absorbed mainly in the upper small bowel. It would appear unwise therefore to use enteric coated iron tablets as iron therapy. The daily requirement of iron is about 2 mg. but because normally only about 10 per cent of iron ingested is absorbed about 20 mg. is the recommended daily amount—though in the presence of iron deficiency anemia the rate of absorption may increase considerably—even, occasionally, to 40 or 50 per cent. In the presence of infection the tissues seem to hold iron and though adequate quantities are ingested, the red blood cells do not seem to be able to obtain the iron from the tissues. Giving large quantities of iron orally does not remedy this condition. The obvious treatment is to eradicate the infection if possible. Small blood transfusions

*Doan and Damashek have postulated different views as to the mechanism of hypersplenism. According to Doan's view (sequestration theory) there is phagocytosis of one or more cellular elements of the blood by the spleen—phagocytosis of large numbers of red blood cells resulting in hemolytic anemia, of leukocytes in neutropenia, of platelets in idiopathic purpura, of all three of the above in panhematopenia. Damashek's view is that the spleen normally exerts a hormonal inhibitory action on bone marrow blood formation, and that if this inhibitory action is exaggerated, depression of one or more of the cellular elements and hypersplenism can occur.

**The anemia resulting from failure by the hemopoietic tissues to properly utilize this anti-anemic substance has been called achrestic anemia.

however are also of value. Recently the intravenous use of iron has been advocated when it is difficult to raise hemoglobin values by oral iron therapy, and though intravenous iron is often of value in individuals who cannot tolerate oral iron, there is a possibility that intravenous iron will be used more or less indiscriminately as is liver extract. This is to be deprecated because little is known of the metabolism of iron,[†] there have been deaths reported due to iron poisoning (ingestion), and there is the possibility of hemosiderosis.

In the presence of infection the administration of cobalt appears to help the tissues release some iron to the red blood cells, but because almost nothing is known of cobalt metabolism, the general use of cobalt for this purpose is unwise. Cobalt exerts its effect in the stage depicted as does thyroxin in some anemias associated with hypothyroidism.

Since adequate quantities of copper are present in the usual diet, there is no need for using copper as anti-anemic therapy except perhaps in rare instances in young infants.

Vitamin C§ deficiency is said by some people to be a factor in causing some anemia, adequate quantities apparently being required for normal functioning of erythropoietic tissue.

The use of preparations containing multiple anti-anemic substances designed to aid in maturation of the red blood cell at its various stages is wasteful therapy unless there is evidence of multiple deficiencies in maturation factors. It is somewhat like giving a blood transfusion when there is need for only additional sodium chloride in the blood stream. Besides the waste, however, it is not rational therapy. It frequently lulls the physician into a false sense of security so that he does not search for the exact cause of the anemia, but prescribes medication with the hope that it will remedy the anemia though he does not know the cause.

Based on the as yet unproven concept that leukemia is a form of blood cancer, though it is not proven, in recent years some newer drugs have been introduced as therapeutic agents to destroy leukemic tissue and prevent or decrease the production

of leukemic cells. These agents, however, do not act only on the abnormality in the cell which renders it malignant or leukemic but produce changes, too, in normal cells. They act as general cell poisons (urethane, nitrogen mustards, radioactive phosphorus), or antagonists to substances essential to cell growth (aminopterin and other folic acid antagonists). One should be cognizant, however, that these forms of therapy have only an empirical basis for their use because little is known of the etiology of blood cancer, if leukemia is a malignant disease, and because little is known as to why apparently excessive numbers of white blood cells occur in leukemias. While these agents are not curative and have definite limitations, they often help in producing remissions, temporary clinical improvement, and have helped at times to prolong life.

Though all forms of therapy in acute leukemia are discouraging, folic acid antagonists appear to be of most value, should be started as soon as the diagnosis is made and may produce remissions of several months' duration. X-ray, P₃₂, nitrogen mustards do not produce satisfactory remissions in acute leukemia. The folic acid antagonists presumably interfere with the synthesis of nucleic acids which are essential for cell growth and multiplication, but it is not known whether the effect of the folic acid antagonists is due only to the anti-folic acid action.

In chronic myelogenous leukemia, x-ray, P₃₂, urethane and nitrogen mustard (HN₂) are of value in producing temporary palliative results—irradiation of the spleen being about the simplest and most practical therapy, though P₃₂, HN₂ and urethane may be used. Folic acid antagonists are of little value here. It is rare to have one substance succeed in chronic myelogenous leukemia when another fails. Radioactive P (P₃₂) acts by irradiating tissues through the production of beta rays and possibly has some selective localization in leukemic tissue. HN₂ damages and interferes with multiplication of susceptible cells, and its effect occurs more rapidly but is of shorter duration than x-ray. How urethane interferes with cell growth is not known though it is presumably injurious to proliferating tissue.

In chronic lymphatic leukemia, treatment with any of the effective agents should be given conservatively, because while small doses may produce partial improvement, too large doses may

(Continued on Page 1204)

[†]If large quantities of iron are ingested, only small quantities can be recovered from urine and feces. There is some recent evidence that appreciable iron is lost via skin.

[§]In scurvy, however, the essential pathological change is weakening of the endothelial wall of the capillaries, the intercellular substance being reduced in amount.

Experiences with Cervical Arteriovenous Fistulas in Attempts to Increase the Blood Supply to the Brain

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NUMEROUS DISEASE states in which the blood supply to the brain is impaired are commonly encountered in everyday practice. These include birth injuries, mental retardation, and convulsive states in the younger age groups and post-traumatic and cerebrovascular accident residuals in the older age groups. Pathologically all of these states are characterized by a scarring or gliosis which interferes with the blood supply to the brain tissue. Because such lesions have been rather refractory to all forms of treatment, a surgical attempt has been made to increase the blood supply to the brain itself by means of a cervical arteriovenous fistula between the common carotid artery and the internal jugular vein.

Anatomically it is known that the arteries and veins anastomose freely within the brain; and it has been shown by injection studies that, in general, the superior sagittal sinus drains the blood from the cortex and eventually empties into the right internal jugular vein, while the inferior sagittal sinus receives blood from the center of the brain and eventually drains into the left internal jugular vein. Both of these systems anastomose freely.

Injury to the brain by trauma, anoxia, hemorrhage, and vascular occlusion are all characterized pathologically by a decreased blood flow and a glial proliferation, which is manifest clinically by mental deficiency, convulsive states, and motor-sensory impairment.

Neurons in a scarred area of the brain may be completely destroyed, may gradually die, or may continue to live in an obviously abnormal state due to the poor blood supply. They never multiply or hypertrophy. The existence of viable but nonfunctioning neurons is seen clinically in the cerebrovascular accident. Widespread cerebral involvement may occur with the acute episode, yet function returns to the affected parts after a period of weeks or months.

Vascular surgeons have been able to increase the blood supply to an area by reversing the blood flow through the veins of the affected part. This procedure became feasible after the physiology of the arteriovenous fistula was understood.

It had been noted for a long time that an arteriovenous fistula in an extremity causes an increase in its size and temperature and that the increased venous pressure places an additional load upon the heart until the patient either dies of heart failure or the fistula is corrected surgically.

Bernheim^{3,4} reported a case in which he reversed the circulation in all four extremities and on which he had an eighteen-year follow-up report. It should be noted that he ligated the vein proximal to these fistulas.

Jordan⁵ published his results on nine cases in which he anastomosed the femoral artery and vein in an attempt to increase the blood supply to an extremity in which the arteries were obliterated.

Beck¹ reports that he was able to reverse the blood flow through the heart veins by anastomosing the systemic arteries to the coronary sinus.

Sciaroni⁷ reversed the circulation in the brains of humans by anastomosing the proximal severed common carotid to the distal internal jugular vein, in which all communicating branches to the base of the skull had been eliminated, and by anastomosing the distal carotid end-to-end with the proximal end of the internal jugular vein. He referred to this procedure as a "double arteriovenous anastomosis."

In their respective series of eleven and 125 cases Beck and McKhann^{2,6} state that they obtained improvement in 35 per cent of the cases by using a side-to-side anastomosis between the common carotid artery and the internal jugular vein, in which all feeder branches had been ligated up to the base of the skull. The jugular vein was divided between the anastomosis and the heart.

In work on monkeys Webster and Gurdjian⁸ claimed that the blood flow through the brain is not reversed.

The authors have performed an operation similar to Beck's on nine cases and the improvement noted in some of the patients has prompted this report.

This study was begun on children under observation in the Kalamazoo Cerebral Palsy Training Center. Prior to surgery each patient had a complete physical examination, birth and psychiatric evaluation. Laboratory studies included spinal

fluid examinations, pneumoencephalograms and electroencephalograms.

A cervical arteriovenous fistula was constructed on the right side of the neck, using the common carotid artery and the internal jugular vein.

Postoperatively, spinal fluid pressure readings were taken before discharge from the hospital and the children were studied further by the interested pediatricians.

In the adults, who were post-stroke victims with residual motor and mental defects, a neurological examination, the usual laboratory studies, and a spinal fluid examination were performed. Kidney function tests, electrocardiograms, and more detailed studies were done when indicated.

The same general operative procedure was used in all cases. A transverse incision was made above the right clavicle and parallel to it, extending from the midline as far laterally as was deemed necessary for exposure of the carotid sheath. The sternocleidomastoid muscle was cut, exposing the carotid sheath. The internal jugular vein was dissected free from the level of the clavicles to the base of the skull, and all branches leading into it were ligated and divided. The common carotid artery was freed up from surrounding adventitial tissue and a Potts clamp was applied. The internal jugular vein was occluded above and below the Potts clamp, using heavy silk occluding ligatures with which the vein was tied to the Potts clamp. The artery and the vein were opened and a 3 to 4 mm. fistula was established, using a 5-0 running silk suture. The internal jugular vein was divided between the fistula and its entrance into the superior vena cava. After the Potts clamp was released, with all bleeding under control and the fistula functioning, the cut ends of the sternomastoid were approximated, using 2-0 chromic sutures. The platysma and skin were closed separately.

An intratracheal anesthetic was given and blood was available if needed. However, the blood loss was minimal. The patient was kept in oxygen for twenty-four hours and then was allowed to be up and about. Steam inhalations were used if hoarseness resulted from the intratracheal anesthetic.

Case Reports

Case 1.—R. A., a two-year-old white boy, was admitted on March 22, 1950, because of stiffness of all extremities and inability to talk. The child had had a difficult forceps delivery, which was followed by a brain

hemorrhage. The child was blue at birth and was kept in an oxygen tent for three weeks after delivery. He had never walked, talked, or sat alone. After Dr. Perlstein had studied him in Chicago and had done electro- and air-encephalograms, other laboratory tests and psychiatric studies, he had been enrolled in the Kalamazoo Cerebral Palsy Training Center. Although he had always had difficulty in breathing and choked easily, he had been maintained on a good diet supplemented by vitamins and had had all his immunizations. There were no familial diseases.

There was stiffness and spasticity in all four extremities. The head was small for the size and age and there was a squint of the left eye. The Babinski was positive bilaterally, with bilateral ankle clonus and active knee, elbow and ankle jerks.

The blood count, urinalysis, and spinal fluid were normal. A pneumoencephalogram showed an asymmetric enlargement of the lateral ventricles, the right being larger than the left. The brain structure seemed to be shifted to the right of the midline. There was an area of cortical atrophy, primarily in the right parietal region, with an obliterative arachnoiditis over the whole right hemisphere. An electroencephalogram revealed marked asymmetry with a diminution in the right temporo-parietal and occipital areas, both awake and asleep. There were left temporal spikes.

A diagnosis of spastic quadriplegia due to cerebral hemorrhage at birth was made.

On March 23, 1950, a cervical arteriovenous fistula was created between the right common carotid artery and the right internal jugular vein.

Postoperatively the patient developed a respiratory infection and an edema of both eyelids which disappeared on the fourth day. Since then the spasticity has decreased markedly. The child can now sit up alone and appears to be developing more rapidly. The electroencephalogram now tends towards the normal.

Case 2.—J. S., a three-year-old white girl, was admitted on March 27, 1950, because of generalized body stiffness and poor response and comprehension. She was a blue baby at birth and had had a cerebral hemorrhage, had been attending the cerebral palsy training center and was on the list for institutionalization at Coldwater, Michigan. Her diet consisted of milk and liquids. Two other children in the family were normal.

There was marked spasticity of all four extremities which were rigid, with the legs in a scissors position. The head was small for the body. The child was deaf and was unable to follow light with her eyes. There was a tonic neck reflex and all superficial reflexes were exaggerated. Scratch reflex and ankle clonus were present. The Babinski was positive bilaterally.

The blood count and urinalysis were normal. Spinal fluid pressure was 92 mm., with no change on compression of jugular veins. Pneumoencephalogram showed advanced cerebral atrophy, especially on the right, and a moderately advanced micro-cephalae. An electroencephalogram demonstrated very low voltage, fast activity in all leads while awake. During sleep, 1-2/second waves appeared as base line sway with super-

CERVICAL ARTERIOVENOUS FISTULAS—HAMMER ET AL

imposed low voltage fast activity. The right occipital and temporal area appeared to have higher voltage. No pattern or rhythm was seen in the record.

A diagnosis of spastic quadriplegia, probably due to anoxia at birth, and idiocy was made.

A cervical arteriovenous fistula was created between the right internal jugular vein and the common carotid artery in spite of the fact that the internal jugular vein was about one-fourth normal size.

The fistula failed to function because the internal jugular vein apparently drained only the extra-cranial blood from the anterior facial and lingual veins. Subsequently, a left cervical arteriovenous fistula was created, but again the left internal jugular vein was about one-fourth the normal size. This fistula failed to function also.

Apparently the child had bilateral lateral sinus thrombosis and most of the venous return was through diploe veins of the scalp and other collaterals.

The child was sent to Coldwater.

Case 3.—S. H., a two-year-old white boy, was admitted on April 25, 1950, because of frequent colds, earaches and inability to sit up or talk. The patient was a premature infant, with a birth weight of 3 pounds 11 ounces, and was cyanotic following delivery. He had been constipated since birth and had bowel evacuation only by enema. He could hear, but there was some question about his ability to see. When he stood up, he crossed his legs and kept them together. Although a poor eater, he was well nourished. He was slow in sitting and standing and had never talked. He had had measles and chicken-pox and no immunizations. There were no familial diseases.

This was a well-developed, inco-ordinate child, probably sightless, although the eyegrounds were normal. He had a running nose, the left ear drum was bulging and the tonsils were enlarged. There was spasticity in all extremities with all reflexes hyperactive. The Babinski was positive bilaterally, and there was bilateral ankle clonus.

The blood count and urinalysis were normal. A pneumoencephalogram showed advanced bilateral cerebral atrophy. An electroencephalogram revealed an abnormal slow record with a questionable slow wave focus in the left occipital area. Spinal fluid pressure was 160 mm; left jugular, 200 mm.; right jugular, 240 mm.; both, 400 mm.

On May 2, 1950, a right cervical arteriovenous fistula was created. The patient got along well except for edema of the eyelids. When this subsided on the fourth postoperative day, a lumbar puncture showed a pressure of 600 mm. The patient was discharged on the eighth postoperative day but was readmitted three weeks later because of vomiting and constipation. The spinal fluid pressure was still elevated, and x-rays revealed widening of the cranial sutures. Surgery was recommended but refused by the parents until June 22, 1950. When the arteriovenous fistula was dissected free, the jugular vein had thickened considerably. Clamps were placed above and below the fistula, and the jugular vein was

opened opposite the fistula, which, because it measured 5 mm. in diameter, was closed down to 3 mm. using 6-0 silk. After the jugular vein was closed and clamps were released, the new fistula functioned well. A lumbar puncture at this time showed the spinal fluid pressure normal at 265 mm. The blood pressure now was 110/70.

The postoperative course was uneventful, and the child was discharged on June 29, 1950, with a functioning fistula and normal intracranial pressure. He has since been taking food well, and there has been no vomiting. The spasticity has decreased, and he is attempting to talk, walk, and sit up. A recheck electroencephalogram has not yet been done.

Case 4.—D. J., a two-year-old white girl, was admitted on April 7, 1950, because of spasticity and blindness since birth and a cold and fever of four months' duration. The child had had pneumonia in October, 1949, and again in January, 1950. Birth had been normal and full term. There were two other children in the family, both living and well. The patient had not been able to sit up alone. She had had immunizations for smallpox, diphtheria, and pertussis.

The child was unresponsive, could not sit up or stand, and appeared to be without vision. The right ear drum was gray and dull, with no visible landmarks. The heart was normal, but the lungs were filled with coarse tubular inspiratory and expiratory râles, especially over the hilar areas posteriorly. The extremities were moderately rigid, knee jerks were present, and the Babinski was positive.

The white blood count was 14,150 with 69 per cent polymorphonuclears, 29 per cent lymphocytes and 2 per cent eosinophils. The spinal fluid was normal. A pneumoencephalogram revealed (1) moderate hydrocephalus, probably on a basis of cerebral atrophy, with suggestive evidence for porencephaly of the right parietal lobe and (2) a peculiar mottling of the skull bones, raising the question of Cooley's anemia. The skull was enlarged. The electroencephalogram was abnormally low for the age. There was a questionable slow wave focus in the left parietal area.

A diagnosis of cerebral palsy, blindness, chronic bronchitis, and right otitis media was made.

On May 11, 1950, after adequate preparation, a right cervical arteriovenous fistula was created. A postoperative lumbar puncture was normal, and an electroencephalogram showed spike seizure discharges in the right parietal area.

The child was still blind on discharge, but the rigidity of the extremities had decreased somewhat.

Case 5.—J. M., a fifty-four-year-old white man, was admitted because of cerebral thrombosis with a right hemiplegia. He had been in good health until approximately three months previously, when he noticed paralysis on the right side. There had been no headache, loss of consciousness, pain, or abnormal sensation with this attack. The paralysis involved his face, eye, right arm and leg, and there was loss of speech. The day following the onset his blood pressure was 160/90. He

was observed at weekly intervals, and gradually the facial paralysis improved, until there was only residual muscular weakness. While he was able to walk with a crutch after three to four weeks following the onset, he was still unable to move his fingers, elbow or shoulder and the right arm had started to swell in spite of passive exercises.

The tongue deviated slightly to the right when protruded. The blood pressure in the right arm was 180/90; in the left, 160/80. There was slight slurring of speech. All reflexes on both sides were hyperactive. There was inability to flex the ankle and toes and to abduct, adduct or rotate the shoulder, elbow, wrist or fingers. The right arm was spade-like and the right hand was stiff and swollen. The quadriceps and the hip muscles were intact.

The blood count, urinalysis, and spinal fluid were normal. An admission fluorogram showed a normal chest.

A diagnosis of cerebral thrombosis with right hemiplegia as a complication of generalized arteriosclerosis was made.

On June 1, 1950, an anastomosis between the right common carotid artery and the internal jugular vein was done to increase the blood supply to the brain to relieve hemiplegia.

There were no postoperative complications. Several hours after operation the patient could close his right hand and make a fist. He moved his toes back and forth for the first time since his stroke. On the second day he could shake hands and flex his fingers, elbow and shoulder. He was walking with a crutch on the third day. Five days after operation the facial paresthesia decreased, and the patient could talk. On the eighth day he could climb up and down stairs, whistle, oppose all fingers with his thumb, and flex his wrist, elbow, shoulder, ankle and toes.

Three weeks later the patient was able to drive his car around the block. The swelling in his hand was almost completely gone. After another three weeks he was mowing his lawn.

Case 6.—G. V. H., a fifty-two-year-old white man, was admitted with a post cerebral hemiplegia on the left side. In 1943 the patient had had a stroke which was followed by double vision that persisted for five to six months. In September, 1946, another stroke paralyzed his left arm and leg. By 1948 he was able to walk fairly well with a cane, but had another stroke in July which affected the left side. The patient had been in coma for several hours during the first episode in 1943 and for two days during the attack in 1948. He remained in bed for six weeks unable to move his fingers or toes, then improved until he could move his arm, hand, fingers and leg but there was no strength in them. For the six months previous to admission he had developed sharp burning pain down the left leg for which he had been hospitalized at a Veterans Hospital for several months. At the time of the present admission, there was dull pain in the lower back, hip, and down the back of the leg with sciatic distribution. The entire left side drew up with pain.

The blood pressure was 180/110. The pupils reacted sluggishly to light and there was a slight stare. There was an unsustained nystagmus to the left. The tongue protruded to the left. There was slight tenderness in the left lower quadrant. Speech was slow. The patient dragged the left leg. Sensation to vibration and touch was diminished on the left. The Babinski was positive and there was ankle clonus on the left. There was some disuse muscle atrophy in the left thigh and hand.

The blood count and spinal fluid were normal. The urinalysis showed a faint trace of albumin, 100 to 150 red blood cells, 3 to 5 white blood cells and an occasional hyaline cast. The admission fluorogram showed an abnormal aorta.

A diagnosis of post-cerebral hemiplegia on the left with mental changes was made.

On June 30, 1950, a right cervical arteriovenous fistula between the common carotid artery and the internal jugular vein was created to increase the blood supply to the brain.

Immediately after operation there was an increase in blood pressure. The following day the patient could move his toes and hands. On the second postoperative day he was up and moving about. He was discharged on the ninth day slightly improved. Slow improvement had been expected because of the extreme muscle atrophy which would require further local treatment.

The patient was readmitted on July 15, 1950, because of bleeding from the operative wound. Oozing continued in spite of two blood transfusions. On July 24, exploration disclosed that a false aneurysm had formed at the distal end of the fistula and had ruptured. The internal jugular vein was ligated distal to the fistula, the false aneurysm resected and the opening in the carotid artery sutured. The improvement in motor function stopped after the fistula was eliminated. Further surgery was deferred because the patient continued to run a blood pressure of 260/150 at bed rest.

Case 7.—H. K., a fifty-two-year-old white man, was admitted with right hemiplegia following cerebral thrombosis. In July, 1949, the ends of his fingers and toes began to prickle. The patient was hospitalized when this condition became worse on exercise. He did not lose consciousness, but did not remember anything that happened for two days. There was no loss of speech, although the paralysis was on the right side and included his face. He was discharged after one month, was up and about after two more months and in another six months could look after himself. Since April, 1950, he had deteriorated, his movements having become slow and awkward and his speech slow.

Physical examination showed a slight limp of the right leg. Speech was slow. The Babinski was positive on the right and he was unable to flex his ankle. There was muscular weakness, but no sensory changes.

The blood count, urinalysis, and spinal fluid were normal. An admission fluorogram showed a normal chest.

A diagnosis of right hemiplegia following cerebral thrombosis was made.

On July 3, 1950, a 2 mm. cervical arteriovenous fistula

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between the right common carotid artery and the internal jugular vein was created to improve the blood supply to the brain.

On the first postoperative day it was noted that the fistula was not working. The wound healed, but the fistula was still not functioning and there was no improvement.

Case 8.—G. R., a sixty-five-year-old white man, was admitted with aphasia and a right hemiplegia following four strokes. The patient had had three strokes in the past five years. About three years ago he lost his voice completely following a stroke. He had been unable to walk and had to use a wheel chair. The right arm and leg were still weak. Speech was slowed, spasmodic and unintelligible most of the time.

Physical examination showed the blood pressure on the right to be 180/130 and 210/140 on the left. Superficial abdominal and cremasteric reflexes were absent on the right. The Babinski was questionable on the right. Sensation was diminished on the right and absent to touch from the knee down. Position sense was poor on the right.

The blood count and urinalysis were normal. The spinal fluid Kahn was doubtful and the pressure was 190 mm.

A diagnosis of speech aphasia and right hemiplegia following cerebral thrombosis was made.

On July 10, 1950, a cervical arteriovenous fistula between the right common carotid artery and the internal jugular vein was created to increase the blood supply to the brain.

Several hours after operation the patient could speak distinctly at times and had better motion in his hand. The next day his speech had improved further as had the motion in his hand and foot. The pain had left his right arm and leg. On the second postoperative day speech was very distinct. He was able to walk four days after operation. Two weeks later he could pronounce many words he had been unable to enunciate since the onset of his aphasia. The pain in his right arm and leg had diminished, and he was able to get around better.

Case 9.—G. A., a forty-eight-year-old white man, was admitted in July, 1950, with left hemiplegia following cerebral thrombosis, that had occurred on May 31, 1950. It was believed that his hemiplegia had been caused by an embolus since he had rheumatic heart disease (inactive), cardiac hypertrophy and dilatation, mitral stenosis and regurgitation, Grade III, and generalized arteriosclerosis.

The patient was on digitalis and was fibrillating. The blood pressure was 110/68, there were râles at the base of the left lung posteriorly and there was complete loss of function of the left arm and leg. The facial muscles were hard to evaluate. The apex of the heart was palpable in the fifth interspace in the anterior axillary line and the area of cardiac dullness extended to the mid-axillary line. There was a palpable thrill. On auscultation there was a rough presystolic and blowing systolic murmur loudest at the apex.

The blood count, urinalysis and spinal fluid were normal. An electrocardiogram showed rapid auricular fibrillation, with no digitalis effect.

On July 25, 1950, a right cervical arteriovenous fistula was created, surgery being uneventful.

The patient was kept in oxygen for three days after operation. On the first postoperative day he complained of tingling sensations in his left foot and arm. He was able to move his toes on the fourth postoperative day. Three weeks later, the patient, still confined to bed because of his cardiac status, stated that the paresthesias had increased, but had no motion in his hand or foot. He complained of a buzzing noise in his right ear.

Discussion

Table I compares the effects of traumatic arteriovenous fistulas with surgically created cervical and femoral arteriovenous fistulas. It demonstrates the effects produced when the vein is ligated and divided between the fistula and the heart.

Increased intracranial pressure occurs if the cervical arteriovenous fistula is made too large. The symptoms disappear as soon as the fistula is made smaller or eliminated.

The fistula effects in the limbs, with the proximal venous limb ligated and divided, put no increased load on the heart.

The surgery consists of making a 3 mm. fistula between the common carotid artery and the internal jugular vein after all branches emptying into it have been ligated between the site of the fistula and the base of the skull. The branches of the internal jugular vein encountered are usually muscular branches from the sternomastoid, the anterior facial and the ranular, which often join and enter via a common trunk and a thyroid branch.

The sternocleidomastoid muscle can be cut transversely and heals in the same manner as any other muscle, by means of a fibrous tissue band of scar tissue.

The ansa hypoglossi lies in the carotid sheath and need not be disturbed during the dissection.

The dome of pleura may be encountered in the region of the clavicle, but it is of no concern unless it is opened. The vagus nerve lies posteriorly and need not be disturbed in this dissection.

Before anastomosing the internal jugular vein and the common carotid artery, the perivascular and adventitial layers should be dissected from the region of the anastomosis.

The vessel can be occluded by means of tem-

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TABLE 1

In General, Arteriovenous Fistula Effects Depend Upon:

1. Size of fistula
2. Caliber of affected artery
3. Duration of the fistula

Effects On Arterial Side	Effects On Venous Side	Effects On Heart	Effects On Head	Effects On Limbs
<ol style="list-style-type: none"> 1. Decreased peripheral resistance 2. Decreased general blood pressure 3. Decreased diastolic blood pressure (Water hammer pulse) 4. Lowered aortic pressure 5. Increased blood volume 6. Increase in size of aorta 7. Increase in collaterals 8. Capillary pulsations 	<ol style="list-style-type: none"> 1. Increased venous pressure 2. Increase in caliber of veins 3. Increased thickness of vein walls 4. Increased venous oxygen 5. Decreased CO₂ 6. Increase in collaterals 7. Capillary pulsations 8. Aneurismal dilatation 	<ol style="list-style-type: none"> 1. Increased right auricular pressure 2. Right heart hypertrophy 3. Right heart dilation 4. Right heart decompensation 5. Increased blood volume 6. Increased work 7. Elevated rate 8. Increased cardiac output 9. Increased minute volume 10. Reduction in coronary flow 11. Flow like aortic regurgitation (Low diastolic, high pulse pressure, collapsing pulse) 	<ol style="list-style-type: none"> 1. Increased intracranial pressure 2. Increased blood flow? 3. Increased oxygen to brain? 4. Increased collaterals 5. Capillary pulsations 6. Bruit and thrill at fistula site 	<ol style="list-style-type: none"> 1. Increase in size 2. Increase in temperature 3. Venous engorgement 4. Edema 5. Palpable thrill at fistula 6. Bruit at fistula site

Surgically Produced Cervical Arteriovenous Fistula Effects are Sudden, Profound, Dramatic

None	<ol style="list-style-type: none"> 1. Increased venous pressure 2. Increased caliber of veins 3. Increased thickness of vein walls 4. Increased venous oxygen 5. Decreased venous CO₂ 6. Capillary pulsations? 	None	<ol style="list-style-type: none"> 1. If too large, increased intracranial pressure 2. Increased blood flow? 3. Increased oxygen to brain? 4. Increased collaterals 5. Thrill at site of fistula 6. Bruit at site of fistula 	Note
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Surgically Produced Arteriovenous Fistula in Limbs is Used to Increase Blood Supply to Arteriosclerotic Limbs

<ol style="list-style-type: none"> 1. Increase in collaterals 2. Capillary pulsations 	<ol style="list-style-type: none"> 1. Increased venous pressure 2. Increase in caliber of veins 3. Increase in thickness of vein walls 4. Increased venous oxygen 5. Decreased CO₂ 6. Increase in collaterals 7. Capillary pulsations 	None	None	<ol style="list-style-type: none"> 1. Increase in size 2. Increase in temperature 3. Venous engorgement 4. Edema 5. Palpable thrill at fistula site 6. Bruit at fistula site
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porary ligatures, bulldog clamps or with a Potts clamp. All of these methods have been used and have proven to be satisfactory.

The fistula should measure approximately 3 mm. in diameter. The vessel walls are sutured with a running 6-0 silk suture. Continuous or separate sutures may be used for the anterior and posterior rows.

If the fistula is made too large, the patient develops signs and symptoms of increased intracranial pressure (separated sutured and increased spinal fluid pressure). This is eliminated immediately by surgically reducing the size of, or eliminating, the fistula. In the case of S. H., the fistula area was dissected out completely and the vein wall was found to have hypertrophied up to the size of the artery. Several small aneurysmal areas were pres-

ent where the wall had thinned out. Clamps were placed above and below the fistula, and the jugular vein was opened up widely, completely exposing the arteriovenous fistula. The six weeks' old silk sutures were visible, but they were covered by fibrin. The fistula was narrowed from 5 mm. to 3 mm. in diameter, and the incision in the internal jugular vein was closed. By the time the surgical incision was closed, the spinal fluid pressure had returned to normal, as evidenced by a lumbar puncture. Because of this experience in an infant, we have been careful to measure the size of the fistulas in adults and to do a spinal puncture immediately after closure of the neck.

In one case (C. S.), the left internal jugular vein was atrophic and even though an anastomosis was made, the fistula never functioned. A fistula was

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TABLE II

Case	Initials	Age and Sex	Diagnosis	Accompanying Disease	Operation	Complications	Results So Far
1	RA	2 M	Cerebral palsy; Spastic quadriplegia	Difficulty in respiration	Rt. A-V fistula	Transient edema of eyelids	EEG improved; Spasticity decreased; Can sit alone; Trying to talk.
2	CS	3 F	Spastic quadriplegia	Idiocy	Rt. A-V fistula Lt. A-V fistula	Nonfunctioning fistula Nonfunctioning fistula	No improvement No improvement
3	SH	2 M	Cerebral palsy	Constipation	Rt. A-V fistula	Increased intracranial pressure from too large a fistula	Vomiting
				Increased intracranial pressure from too large a fistula	Surgical reduction in size of fistula	Edema of eyes	Decreased spasticity; Attempting to walk, sit and talk
4	DJ	2 M	Cerebral palsy; Blind	Rt. otitis media; Chronic bronchitis	Rt. A-V fistula	Rt. otitis media	Still blind; decrease in spasticity
5	JM	54 M	Cerebral thrombosis Rt. hemiplegia	Generalized arteriosclerosis; Essential hypertension	Rt. A-V fistula	None	Return of motor and sensory function to rt. side; Can walk, use hand to eat, shave and work
6	GV	52 M	Lt. hemiplegia; cerebral hemorrhage	Essential hypertension; Disuse atrophy of muscles of lt. side.	Rt. A-V fistula	Ruptured false aneurysm 1 month post op.	Decrease in tremor
			Ruptured false aneurysm	Benign prostatic hypertrophy; Hemorrhoids	Closure of fistula	Thrombosed hemorrhoids	No improvement
7	HK	52 M	Cerebral thrombosis; Rt. hemiplegia	Generalized thrombosis	Rt. A-V fistula	Nonfunctioning fistula	No improvement
8	GR	65 M	Rt. hemiplegia; Speech aphasia after 4 cerebral hemorrhages	Essential hypertension; Generalized arteriosclerosis	Rt. A-V fistula	None; Buzzing noise in rt. ear	Return of speech; Improvement in memory for recent events; Decrease in pain in rt. arm; decrease in spasticity
9	GA	48 M	Cerebral thrombosis; Lt. hemiplegia	Rheumatic heart disease with auricular fibrillation	Rt. A-V fistula	Auricular fibrillation; Buzzing noise in right ear	Improved(?) motion in left foot; Paresthesia in left hand

made on the right side one week later. No detrimental effects occurred, although the scalp veins became more prominent.

The effects of a surgically produced arteriovenous fistula are sudden and profound upon the entire system, and the outward appearances are dramatic. In adults the immediate results of the fistula become evident almost as soon as the patient comes out of the anesthetic, as in the case of J. M., who had a flail right arm and leg prior to surgery. He was able to oppose all fingers with his thumb in one week, to climb stairs, to smile and whistle. He could drive a car three weeks after surgery and hopes to return to work six weeks after surgery.

If the fistula is made too small, it usually does not function and the jugular vein thromboses.

One of the problems peculiar to this type of surgery is the shunting of too much blood to a part, which may produce untoward results, as in the case of S. H., where the intracranial pressure was increased dangerously.

Another complication, encountered in the case of G. V. who had a resting blood pressure of 250/150, was the formation of a false aneurysm which formed at the distal end of the cervical arteriovenous fistula and ruptured spontaneously one month postoperatively. This was controlled by eliminating the fistula and sewing up the defect in the carotid artery.

The purposes of endotracheal anesthesia in these cases are twofold. First, it insures a patent airway when the head is twisted to one side. This is especially true in children. Second, it is the only method which provides a means of establishing a completely closed system essential for pressure anesthesia. Pressure anesthesia is of primary importance if the pleura is punctured. This complication has not appeared in this series.

The length of time of observation for these cases has been short and the number small, but so far the results are encouraging and are superior to results obtained with any other type of therapy.

Table II summarizes the nine cases presented.

(Continued on Page 1205)

Fresh Fractures of the Shaft of the Femur

Current Methods of Treatment

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IN order to obtain information concerning the present methods of treating acute fractures of the shaft of the femur, questionnaires were sent to each chief of orthopedic surgery of the hospitals listed in the *Journal of the American Medical Association* (May 1, 1948), as being approved for residency training in orthopedic surgery.

Of the replies to the questionnaire, 113 were sufficiently clear and definite enough to be included in this survey.

Closed Reduction

Eighty-three orthopedic surgeons (73.4 per cent) prefer to utilize closed methods of reduction for fresh fractures of the femoral shaft in adults.

Open Reduction

Thirty orthopedic surgeons (26.6 per cent) prefer to perform open reduction for acute femoral shaft fractures in adults.

Closed Reduction Methods Employed

Traction is the most popular method of closed reduction. Caldwell of New Orleans writes:

"When traction is promptly applied and efficiently followed, it is seldom necessary to perform an open reduction."

Hammond of Sayre, Pennsylvania, states:

"I am in disagreement with those who favor early open reduction because practically all fresh fractures of the shaft of the femur can be treated conservatively by continuous traction."

Skeletal traction employing a Kirschner wire is generally used. The Kirschner wire may be inserted through the upper end of the tibia or above the femoral condyles or rarely through the os calcis.

A few orthopedists prefer skin traction.

Balanced traction is the most popular form of traction in use at the present time.

Since balanced skeletal traction is the most generally used method for treating acute femoral shaft

fractures it is fitting that the procedure be explained in detail. This is best done by quoting Bolibagh of San Francisco:

"Insofar as the actual treatment of the fracture is concerned, it is our practice to insert a Kirschner wire through the crest of the tibia for skeletal traction. The extremity is then suspended in a Thomas splint from a Balkan frame, in other words, balanced skeletal traction.

"It is our policy to apply the maximum weight immediately to overcome the shortening and obtain alignment of the fragments. Twenty-five to forty pounds are required according to the circumstances and size of the individual. The foot of the bed is elevated so that the body counteracts the weight of the skeletal traction on the femur.

"Check x-rays may be taken within twenty-four or forty-eight hours to determine if there is any distraction or angulation due to inadequate traction. The amount of traction required to maintain alignment and apposition of the fragments is used; 12 to 15 pounds are usually required. Experience and very careful supervision of the patient is necessary to prevent distraction or angulation. . . .

. . . . It is our practice to maintain the bone in not more than 5 or 10 degrees of flexion. Quadriceps exercises are started within a few days and the patient is required to contract this muscle group at least 200 times an hour during the day. Various types of foot supports are used. These are never rigid, but are maintained with elastics in order to support the foot in the neutral position and allow active flexion, extension, inversion and eversion as well as motions of the toes.

"When there is sufficient callus to warrant it, we start active motion of the knee with the Pearson attachment on the Thomas splint. The time varies considerably in different patients, but usually between the second and third month. About this time, skin traction will be substituted for skeletal traction. When we feel that there is adequate callus, we allow the patient to remove his leg from the splint and exercise his knee over the side of the bed. It is roughly six months before the patient is allowed weight bearing. If union is firm, as demonstrated clinically and by x-ray, no brace is used. On the other hand, if union is not complete we frequently allow these patients up with an ischial bearing caliper brace. Active physiotherapy is continued throughout the course of the treatment in order to prevent as much atrophy as possible and to maintain the joints in as normal state as possible consistent with adequate immobilization of the fracture."

When such prolonged hospitalization is impractical, a plaster hip spica cast may be applied after adequate callus formation, as demonstrated by x-ray, has occurred. O. C. Hudson of Hempstead, Long Island, as representative of this more practical viewpoint, states:

"When clinically solid and after ten to twelve weeks of traction, a spica is applied until bony union is solid.

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Quadriceps exercises and toe exercises are begun the day of the injury and continued thirty times an hour for ten hours a day during the entire period of healing."

It is interesting to note that when treating transverse fractures of the shaft of the femur O. C. Hudson prefers to have the fractured ends overlap and not to meet end to end.

C. H. Wilson, working at the Tennessee Coal, Iron and Railroad Company Hospital in Birmingham, Alabama, writes:

"As yet we have not found any method to substitute for the treatment of these fractures with suspended balanced skeletal traction which is maintained until union is firm enough for plaster cast immobilization. Our experience with open reduction has not given the good results as received by the above skeletal traction. This opinion is based on approximately 100 fresh fractures of the femur seen each year."

Russell traction is another way of utilizing traction in the treatment of fresh fractures of the shaft of the femur and it has several strong advocates. C. F. Clayton of Fort Worth, Texas, writes:

"The Russell method is applicable to practically all shaft fractures, whether transverse, oblique, spiral or comminuted, and at whatever level in the shaft, from the trochanteric downward to and including the distal end."

McCusker, of Providence, Rhode Island, writes:

"We have been making an analysis of our femoral shaft fractures at the Rhode Island Hospital between 1931 to 1946 inclusive. We had a total of 566 cases of which 346 were treated by Russell traction throughout with complete satisfactory end results."

M. J. Wilson of New York has treated over 600 fractures of the shaft of the femur with Russell traction. He has described in detail the proper application of Russell traction.

"The Fixed Traction Spica" Method

A very interesting way for maintaining continuous traction with the patient in a double hip spica cast is being used by R. A. Moore of Winston-Salem, North Carolina. Skin traction is usually used, and the patient can be sent home in a few days.

Pin and Plaster Method

The pin and plaster method of holding the fragments of the fractured femur in position was originated by H. W. Orr of Lincoln, Nebraska, and is used by several workers at the present time. This

entails manipulation of the fracture, the insertion of several pins through the fragments, and the incorporation of the pins in a plaster cast.

Open Reduction as Second Choice

While 73.5 per cent of the orthopedists prefer to treat fresh fractures of the shaft of the femur by closed reduction, most of them perform open reduction in a certain percentage of their cases.

As representative of this group, I quote R. H. Alldredge of New Orleans:

"If the fracture does not respond properly and fairly immediately to this method of treatment (balanced skeletal traction), I perform an open reduction operation, using either plates and screws or in some cases the intramedullary nail of Kuntscher."

The trial period of time allotted traction to permit reduction of the fractures varies from forty-eight hours to two weeks. C. Scuderi of Chicago writes:

"It has been our opinion that fractures of the shaft of the femur had best be treated by skin traction, using well-applied Buck's extension and that if the position is not satisfactory within a matter of five to seven days, it has been our practice to do an open reduction with internal fixation using metal plates and screws."

Parnall of Albuquerque, New Mexico, prefers balanced skeletal traction but finds that probably 30 to 45 per cent come to open reduction.

McLemore of Seattle writes:

"I dare say that approximately 75 per cent of my cases of fractures of the shaft of the femur are treated by manipulation, pins and spica cast, whereas approximately 25 per cent are treated by open reduction and plating, followed by plaster cast fixation."

Several workers in this group prefer to perform immediate open reduction when the fracture is in the upper third of the femoral shaft.

Open Reduction: Fresh Simple Femoral Shaft Fractures

Open reduction and plating is the procedure of choice of 26.6 per cent of the orthopedic surgeons when treating most fresh femoral shaft fractures. Quoting from the correspondence of representative surgeons in this group:

Edward Compere of Chicago:

"Fresh fractures of the shaft of the femur in adults are treated on my service by open reduction and internal fixation with an anterior and a lateral metal plate, in

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most instances. This method permits early ambulation with crutches and an ischial weight-bearing splint."

Donaldson of Pittsburgh:

"Of late years there is a greater tendency on our part to reduce the fracture by open reduction and plating at one sitting. In the aged such plating is desirable as soon as possible and we feel it should be reinforced by a second plate."

McLaughlin of New York:

"We feel internal fixation to be indicated in all fresh adult fractures of the shaft. Internal fixation is used in the form of plates and screws in most cases."

J. S. Speed of Memphis:

"I might say that our criteria for treatment of fractures two or three inches below the greater trochanter is by open reduction and some type of internal fixation."

Mumford of Indianapolis:

"I am a 'radical' against the promiscuous use of metal in fracture work, and as stated am of the opinion that efficient external splintage must supplement internal fixation. The exception to this opinion and to these rules is in the treatment of a fracture of the shaft of the femur, in that the most satisfactory plan is the use of two metal plates for immobilization and the after care is that of a Thomas splint with a Pearson attachment. But such exceptions are made not for the healing of the fracture but for the prevention of the stiffness and loss of function in the knee joint."

Among those who prefer to use balanced skeletal traction for most femoral shaft fractures, there are several who prefer open reduction for fractures in the upper third of the shaft. Van Gorder of Boston, who prefers balanced skeletal traction, writes:

"In supracondylar fractures, I almost always operate and do an open reduction."

Several surgeons prefer to pack cancellous iliac bone chips around the fracture site at the time of operation; others have expressed the value of using the Eggers slotted plate.

Medullary Nailing

A few workers in this country have begun to use medullary nailing for femoral shaft fractures.

R. K. Lippman, New York, states:

"I should like to state that my recent preference in the treatment of simple femur fractures in adults is with the Kuntscher nail."

H. Cooper, Peoria, Illinois:

"I have done about six femurs by means of the Kuntscher bar."

Mazet, Los Angeles:

"I think that we are pretty much agreed now that balanced traction or intramedullary nailing is better."

D. Street, Memphis:

"Simple fractures which are fresh and require no open reduction for reduction, we treat either with balanced skeletal traction or by medullary nailing using closed manipulation. The convalescence is greatly reduced by the use of a medullary nail since patients can be ambulated about three weeks and fully weight-bearing at six weeks."

J. E. M. Thomson, Lincoln, Nebraska:

"In fractures of the upper third of the femur, and even in some of the middle and lower third, that is five or six inches above the condyles, or five inches below the trochanter, I am using, in certain selected cases, Kuntscher intramedullary pins. I think it is particularly preferable for fractures of the upper third of the femur to any other method."

Severely Comminuted Fractures

Severely comminuted fractures of the femoral shaft are best treated by balanced skeletal traction.

Compound Fractures of the Femoral Shaft

In badly comminuted compound fractures of the femoral shaft such as those incurred in battle, balanced skeletal traction is the preferable method of treatment. Thus Collom and Ewing reporting on 100 cases of femoral shaft fractures resulting from battle, eighty-two of which were compound and 75 per cent were severely comminuted, write:

"Both from the standpoint of wound healing and fracture alignment, reparative surgery consisting of secondary closure of wounds, with drainage, and skeletal traction, has been most satisfactorily instituted in the period from five to ten days after injury."

However, if the patient is seen soon after the fracture has occurred and when the comminution is not too severe, debridement, internal fixation and primary closure of the wound may be warranted. In this connection, Davis reported a series of 150 consecutive compound fractures treated by debridement, excision of all questionable skin, the use of split-thickness skin grafts to close wound defects, primary suture of the wound and the application of compression dressings.

Fractures of the Shaft in Children

Open reduction for fractures of the shaft of the femur in children is rarely indicated. Traction is the method of choice.

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Van Gorder of Boston prefers Bryant's overhead traction for children under six years of age and traction (Russell or using a Thomas splint) in older children.

Schmidt, from the Milwaukee Children's Hospital, writes that all fractures of the femur in children under twelve are treated with balanced traction, namely, Russell's traction. Skin traction is preferred and no plaster cast hip spica is used.

Blount, Schaefer and Fox reviewed 280 cases of fracture of the femur in children treated at the Milwaukee Children's Hospital finding that fifty patients had sustained a fracture in the upper third of the femoral shaft, 194 in the middle third and thirty-seven in the lower third. In babies and children up to the age of four or five years, Bryant's traction was used; in older children, Russell traction was the method of choice. Skin traction was applied, and three to six pounds' weight was required. The traction was continued until massive callus had formed which was no longer tender. They state:

"We are certain now that there was no justification for open reduction in any case in our series. Normal apposition is not only unnecessary but may be less desirable than bayonet apposition. In the middle third, overriding of one-half inch is preferable to end-to-end apposition. An average overgrowth of the fractured bone of one-half inch may be expected."

Pease, from the Children's Memorial Hospital in Chicago, writes:

"It can be said that fractures of the femur in children should never require any operative interference for reduction. Adequate traction should be applied and as long as alignment is satisfactory in both antero-posterior and lateral planes an excellent result can be expected. If as much as one inch overriding occurs, overgrowth of the femur will, as a result of stimulation due to increased vascularity, compensate for the shortening. Fractures of the femur which are reduced with end-to-end apposition often result in an overgrowth of the extremity."

Summary

One hundred and thirteen leading orthopedic surgeons responded to a questionnaire concerning the present methods for treating fresh fractures of the shaft of the femur.

Seventy-three per cent of these preferred to treat such fractures by closed reduction. The large majority of this group preferred balanced skeletal traction. Actually, many surgeons, while preferring balanced skeletal traction, tend to perform open

reduction early if the fracture is not promptly reduced by traction while others prefer to treat certain fractures of the shaft by immediate open reduction, i. e., fractures occurring in the upper one-third of the femoral shaft.

Twenty-six per cent prefer to perform open reduction and apply internal fixation for most fresh femoral shaft fractures. Plates with screws are generally used to hold the fragments.

A few surgeons are using, in selected cases, the medullary nailing of Kuntscher. One worker stated that this was his method of choice in the treatment of fresh femoral shaft fractures.

Severely comminuted fractures are best treated by balanced skeletal traction.

Compound fractures may be treated by debridement, internal fixation and primary skin closure, depending on the time that the patient is seen, the amount of contamination, and the degree of comminution.

Fractures of the femoral shaft in children under five years of age are treated by Bryant's overhead traction; from five to twelve years of age by Russell traction or balanced skin traction. It is undesirable to secure anatomical replacement of the fractured bone ends in children because of the tendency for the fractured bone to exceed the normal bone in growth.

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Congenital Malformations of the Heart

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RECENT ADVANCES in the surgical relief of congenital malformations of the heart have created a greater need for more definitive diagnosis of these conditions. Abbott's classification of congenital heart disease serves as an excellent foundation upon which to build the present discussion. Patients in whom there is an arterial-venous shunt, such as in patent ductus arteriosus, interauricular septal defect or interventricular septal defect, ordinarily do not show cyanosis. Conditions in which there is a venous-arterial shunt, such as in the tetralogy of Fallot, tricuspid atresia or transposition of the great vessels, usually exhibit cyanosis. Cyanosis is also absent in cases where there is no abnormal shunting of blood, such as in coarctation of the aorta and in double aortic arch. Some of these conditions will be discussed in detail because of the fact that satisfactory surgical means exist for alleviation or correction of the defect.

Ordinarily the ductus arteriosus gradually closes after birth in a varying period of time, usually being obliterated by the sixth month. If the ductus arteriosus remains open, one may hear in infancy a short systolic murmur which is best heard in the second left interspace. As one follows the course of that particular patient, a longer systolic murmur which is eventually accompanied by a short diastolic murmur will develop; and usually by three years of age the typical murmur has developed, a murmur which is continuous, roaring, rumbling, machinery-like, humming-top in character, a murmur which is best heard in the second left interspace, almost equally well heard in the first left interspace and the diastolic component of which diminishes very markedly in the third interspace. This murmur does not usually change in character or quality with change in position, in contrast to the sound associated with a venous hum, which is heard best over the head of the clavicle and which is louder upon sitting up than upon lying down. Since this is a shunt of blood

from the arterial to the venous circuit there is no cyanosis. Occasionally a patent ductus arteriosus may shunt as much as 70 to 80 per cent of the arterial blood. This abnormal shunt results in a lessened blood supply to the tissues which is reflected by the thin, gracile habitus of the patient. A marked pulmonary congestion also occurs and is reflected by the prominent pulmonary conus and vascular lung fields which are seen in the x-ray and at fluoroscopy. Because of the additional work placed upon the left ventricle, enlargement of this chamber becomes apparent in a varying period of time depending upon the magnitude of the arterial-venous shunt. In addition to the above findings, there is evidence upon physical examination of an aortic insufficiency, which one would expect to find in this condition. This is manifested by the presence of a femoral thud, Corrigan pulse, capillary pulse and a high pulse pressure. If the blood count shows polycythemia or if the electrocardiogram shows right heart strain, one should suspect that the patent ductus arteriosus is not the only cardiac malformation present. Ordinarily, the electrocardiogram shows either left axis shift or left heart strain and occasionally may even show right axis shift. Surgical treatment consists of ligation or, preferably, of section and suture of the ductus arteriosus. Approximately 125 cases have been operated upon at Children's Memorial Hospital with no fatalities. In our experience a soft systolic murmur in the second left interspace remains postoperatively in 40 to 50 per cent of cases. This may represent a functional murmur or may be due to eddy currents in a dilated pulmonary artery.

In the tetralogy of Fallot the onset of cyanosis is usually not at birth but typically occurs between the second and sixth month of life, at which time one might postulate the closing of the ductus arteriosus. Occasionally these children are cyanotic at birth, and in such cases one should suspect the possibility of a complete atresia of the pulmonary artery. Usually a heart murmur has been heard from birth or shortly thereafter. The only other thing of interest in the history is the instinctive desire of these children to assume a squatting position to catch their breath following physical exertion. Taussig states that practically all children "squat" who have inadequate blood supply to the lungs. Approximately 80 per cent of our cases have such a history. Physical examination usually reveals a cyanotic child with a heart that is

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not particularly enlarged and a blowing systolic murmur over the precordium which is best heard in the second and third left interspace. A systolic thrill is usually palpable over this same area. In our experience the murmur which we hear is most likely due to the pulmonary stenosis rather than to the interventricular septal defect. Observations at surgery and at the postmortem table have taught us to suspect the presence of a pulmonary atresia whenever a typical blowing systolic murmur is not present. The only other interesting feature in the physical examination, and at the same time a very important part of the examination, is the presence of a diminished second sound in the second left interspace. This would be expected in a pulmonary stenosis or a pulmonary atresia. X-ray and fluoroscopy show the presence of a typical boot-shaped heart in the anteroposterior view with a clear pulmonary window, a good shelf and possibly slight enlargement of the body of the right ventricle and of the right auricle. The electrocardiogram shows right heart strain.

From the embryological viewpoint, tricuspid atresia is quite different from tetralogy of Fallot. As the name implies, the tricuspid valve is atretic; hence, the blood enters the right auricle, crosses over to the left auricle through an interauricular septal defect, passes into the left ventricle, and then may pass out into the aorta and to the lungs through a patent ductus arteriosus or may pass from the left ventricle into a diminutive right ventricle through an interventricular septal defect, and hence out into the pulmonary artery which is hypoplastic. The clinical features, on the other hand, are similar in many ways to those of the tetralogy of Fallot. The only difference from the standpoint of history is that ordinarily the onset of cyanosis is earlier, and they do not fare as well as the usual tetralogy of Fallot; hence they usually require surgery at an earlier age. The only difference upon physical examination is that the heart may be slightly enlarged and a pulsating liver may be present, in which case one should suspect the presence of a rather small defect in the interauricular septum. In the x-ray there is usually a characteristic gentle rounding or convexity along the left upper salient of the heart, and one may or may not be able to demonstrate a small right ventricle and an enlarged left ventricle; however, the electrocardiogram is the diagnostic feature in this condition, for it is one of the rare instances in cyanotic congenital malformations of

the heart where left heart strain is usually demonstrable. Surgical treatment consists of a Blalock or Potts-Smith type of procedure. Occasionally these children show a poor response to surgery and develop congestive failure. In a significant number of such cases a small interauricular septal defect has been demonstrated. Consequently, if a small interauricular septal defect is suspected, the treatment of choice is to increase the size of the septal defect in addition to the usual anastomosis.

Coarctation of the aorta is frequently overlooked in infancy and early childhood. There are two reasons for this being true. First, if we discard the cases of so-called "infantile type" of coarctation of the aorta who usually expire within the first year of life, the children with the "adult type" of coarctation of the aorta are usually robust and healthy in appearance. Second, the attending physician has neglected to palpate for pulsations in the femoral vessels, a procedure which practically establishes the diagnosis. The onset of symptoms is usually in late childhood or young adulthood when they may begin to complain of easy fatigability, headaches or pain in the legs. Unfortunately, occasionally they come to the attention of a physician at the time of a cerebrovascular accident. Physical examination usually reveals a sturdy child with no cyanosis. The heart may be slightly or moderately enlarged and a systolic murmur may be heard over the precordium. Pulsations and a thrill in the suprasternal notch are rather constant findings. Subaortic stenosis is a frequently associated lesion and should be suspected in the presence of an additional systolic murmur which is unusually loud in the second right interspace. Bruit and pulsations may be apparent along the medial and inferior border of the scapulae and in the intercostal spaces. These findings represent the collateral circulation which is compensating for the coarctation. Pulsations in the femoral vessels are diminished or absent. There is a hypertension in the arms and the blood pressure in the legs may be diminished or unobtainable. X-rays and fluoroscopy may reveal some degree of enlargement of the left ventricle. The x-ray may also show notching of the ribs; however, this is rarely demonstrable before the age of seven and is not a common finding until late childhood. The electrocardiogram may show left axis shift or left heart strain. Surgical treatment consists of excision of the affected area and end-to-end anastomosis of the aorta.

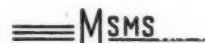
Double aortic arch, or any type of anomaly involving the aorta or its branches in which the esophagus and/or trachea are encircled by a vascular ring, is a condition which is amenable to surgery and is usually recognizable early in life. Frequently there is a history of stridor or wheezing from birth. Dysphagia is often observed when the infant starts to take solid foods. A croupy cough may be present and recurrent pulmonary infections occur. The heart is normal unless an unrelated condition is present. The esophagram is diagnostic for this condition, showing an indentation of the esophagus in the anteroposterior and lateral views at the level of D₄ or slightly above or below, depending upon the type of anomaly present. Surgical treatment consists of severing the vascular ring at the indicated point. In the case of a double aortic arch the smaller segment is interrupted, this usually being the anterior arch.

The general care of cyanotic children may occasionally pose quite a problem. This is especially true in the presence of any disease where the child is in danger of becoming dehydrated. Such dehydration should be avoided as much as possible in order to avert the danger of cerebral thrombosis. We feel that these children should receive their routine immunizations at the prescribed time. The phenomenon of paroxysmal dyspnea in cyanotic children is extremely interesting and at times very dramatic. In our experience any child who has a sudden attack of increased cyanosis associated with dyspnea, hyperpnea or apnea, should be assumed to have an attack of "paroxysmal dyspnea." Treatment for such an attack consists of placing the child in a knee-chest position, administering oxygen and giving morphine in a dose of one milligram per ten pounds of body weight. The apparent contradiction of administering morphine to an individual suffering with dyspnea or apnea is justified when one sees the dramatic improvement in the condition of the child.

In conclusion, the diagnosis of acyanotic congenital malformations of the heart is relatively easy, and simple diagnostic procedures are usually adequate. On the other hand, the diagnosis of cyanotic conditions may be very difficult, and the lesions which are finally demonstrated may be quite complex. We have found it necessary to resort to catheterization or angiocardiology in only 5 per cent of the cases which have been submitted to operation; however, there are many more

cyanotic children in which the diagnosis is not obvious even after catheterization and angiocardiology. Nevertheless, application of the diagnostic principles above will enable a clinician to select most of the cases amenable to surgery from among those which come to his attention.

1010 B Street



OBESITY IN CARCINOMA CERVIX UTERI

(Continued from Page 1178)

Summary

1. Obesity was found in 12 per cent of a series of 263 consecutive cases of carcinoma of the cervix uteri.

2. Factors complicating diagnosis and treatment in the obese woman are enumerated.

3. Absolute five-year survival figures on ninety-nine consecutive cervix cancer patients treated by x-ray and radium prior to 1944 show a survival rate of 50.5 per cent. In the obese woman, the survival rate declines to a 37 per cent average.

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THERAPY OF BLOOD DISEASES

(Continued from Page 1190)

severely damage the hemopoietic tissue with resultant anemia and hemorrhage. X-ray to the spleen is about the most effective therapy though P₃₂ may be equally effective. Urethane and HN₂ are not as useful as x-ray and radioactive phosphorus in chronic lymphatic leukemia, and the folic acid antagonists appear to be contraindicated.

In this paper I have tried to briefly point out the site of action and mechanism, where known, of the most commonly used medication for the treatment of thromboembolic disease, anemia and leukemia—and insofar as possible correlate the use of these forms of therapy with basic knowledge regarding blood coagulation, erythropoiesis, et cetera—and thus indicate an intelligent approach to therapy of these diseases.

252 E. Lovell Street

Report on New Deodorant for Hospital Use

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HAVING BEEN for some years in an administrative position in state hospital work, the need for satisfactory deodorant preparations for use on the more disturbed units of the state hospital has been a frequent problem. The usually prescribed modes of deodorizing the untidy patients' rooms have been routinely ineffectual, merely masking or disguising the obnoxious odor with another odor which was more pleasing to the olfactory organs. These consisted of the use of preparations of pine oil and cresol disinfectants. The odors of these so-called deodorants are disagreeable to many people who would welcome a truly odorless deodorant.

Some months ago we were able to begin using a quaternary ammonium preparation with which we have had excellent results.[†]

This formula is a preparation, using two quaternaries, one of which is the major effective deodorizing agent; the second was used to increase the wetability and softness of the preparation, both of these being compounded with an inert vehicular agent. The preparation has no odor, is shipped in powdered form, goes into solution quickly, contains none of the metals, and is economical. When used in the advised strengths, we have found it extremely efficacious in completely eradicating the obnoxious odors in some of the more disturbed and untidy patients' quarters and in the toilets throughout the institution. This preparation, moreover, is practically non-toxic in the percentage used in the deodorizing solution. The preparation is definitely bacterio-static and bactericidal, the phenol coefficient of the major quaternary used being 410 against *Staphylococcus aureus*, 330 against *Streptococcus pyogenes*, and 200 against *Streptococcus fecalis*, these determinations made in ten minutes at 20 degrees Centigrade.

The excellent results obtained in the original work in deodorizing the rooms in the hospital caused us to feel that perhaps the preparation could be more widely used. After checking carefully the toxic properties of the preparation, the deodorizing formula has been used in a .025 of a

1 per cent solution in an atomizer on contaminated wounds which had excessive odors, either by spraying the solution directly into the lesion or moistening the dressing with it. The preparation was extremely effective in the deodorizing of the few cases upon which it has been used, and in no case was there any evidence of toxic or irritative effect. We have used the preparation in chronic indolent ulcers which were secondarily infected, decubitus ulcers, in gangrenous lesions, and in advanced cases of carcinomatous ulcerations. In all of these cases, the odor was eradicated.

A third type of use which we have investigated was the use of the preparation in suitable strength on perineal pads, the pads being sprayed with the solution, then dried and used in the normal fashion. The preparation has also been extremely efficacious in this use in the female wards.

Additional investigation will be needed with regard to the use of the substance in wound dressings, but at the time of this report it is our opinion that this is a most valuable deodorant preparation, which is non-toxic and non-irritating in a percentage solution as advised and could readily be made use of in general hospitals as well as in mental institutions.

CERVICAL ARTERIOVENOUS FISTULAS

(Continued from Page 1197)

Summary

1. The results and complications encountered in a series of nine cervical arteriovenous fistulas are presented.
2. Improvement occurred in the majority of the cases and in no case were the presenting symptoms aggravated.
3. The cervical arteriovenous fistula is as yet in the experimental stage, but it may offer help in conditions that have been refractory to all forms of medical treatment.

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[†]This preparation is compounded by the Associated Laboratories, Incorporated, 315 N. Ashley Street, Ann Arbor, Michigan.

Why Nursing Education?

By Gertrude E. Nathe, R.N.
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THE MICHIGAN LEAGUE of Nursing Education works co-operatively with the other nursing, professional and educational organizations in the state in an effort to prepare the type of nurse who is qualified to meet the general health and illness needs of the public.

Criticism has been directed toward the nursing profession for its emphasis on "professional nursing." The term implies a better educational foundation for the preparation of today's nurses. The responsibilities of the nurse have changed and increased tremendously in the last decade. Nursing educators are making every effort to keep pace with the advances in medical science and social changes by planning programs which will prepare the nurse to give the type of intelligent nursing care required by the medical profession. Colleges and universities are better equipped to teach the physical, biological and social sciences than the hospital school. For years, many of the schools of nursing in Michigan have used the science departments of universities and colleges by having some or all of their sciences taught by these institutions. This plan relieves more of the nurse instructors for the very important clinical teaching positions in the hospital.

That nursing educators are interested only in "degrees" for nurses is a fallacy is evidenced by studying the enrollment of students in schools of nursing in Michigan. On May 24, 1950, there were 3,181 students enrolled, and of this number only 277 (8.7 per cent) were enrolled in degree programs at colleges or universities. Michigan schools of nursing will graduate 735 students this year, and approximately 4 per cent will receive the Bachelor of Science in Nursing. This degree does not qualify these young women to accept positions in teaching and administration. Depending on their basic preparation, some are qualified to accept first level positions in public health agencies and all are prepared to do staff nursing. Graduating from a collegiate school does mean that it will take the nurse less time to get the advanced preparation required for a degree in nursing education which will qualify her for teaching in

schools of nursing, or for a position of responsibility in the field of supervision or administration.

The curriculum standards for professional schools of nursing in Michigan are set to meet the requirements of other states. It is only fair to the graduates of our schools to give them the basic curriculum required by the majority of states, so that following graduation and registration in Michigan they will be able to meet the requirements for registration in any state.

The nurses realize the need for an increased number of nursing personnel created by the additional number of hospital beds and the many positions open to graduate professional nurses. Every effort is being made to stimulate recruitment of young women to the professional and practical nurse schools. The efforts have been rewarded to the extent that there was a 5 per cent increase in enrollment in 1949. The number of female high school graduates entering schools of nursing has remained quite stable through the years, the ratio being 17 to 1. With approximately 450 occupations open to women, recruitment to nursing is on a very competitive basis. High school graduates are better informed on the essentials of a good school of nursing and investigate several schools before deciding on the school of their choice. This means that schools of nursing must offer a good program if they want to attract good students.

In the annual renewals for licensure required by the Michigan law, some interesting data was collected by the Michigan Board of Registration of Nurses. Renewals as of April 1, 1950, totaled 27,071. Of this number 14,999 were not actively engaged in nursing for reasons such as retirement, illness, marriage and family. Out-of-state residence accounted for 5,270. Of the 13,072 actively engaged in nursing the majority were in the following types of nursing service:

<i>Type of Nursing Service</i>	<i>Number</i>
1. Hospital staff.....	5,880
2. Private duty.....	1,574
3. Office nursing.....	1,143
4. Public health.....	827
5. Industrial nursing.....	811
6. Government service.....	475
7. School of nursing.....	285
8. Anesthesia	193
9. X-ray or laboratory.....	50
10. Other types of nursing.....	1,934
Total	13,072

(Continued on Page 1214)

Miss Nathe is president of the Michigan League of Nursing Education.

Abruptio Placentae Occurring in Three Successive Pregnancies

Case Report

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and

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HAVING HAD a case of complete abruptio placentae occurring in the same individual in three successive pregnancies, we felt that this was so unusual that it should be reported. In looking through the literature, we found it to be reported only once and that by Meda⁴ in 1929.

Complete separation of the normally implanted placenta is rare. Davis and McGee¹ found that in 40,000 confinements at the Chicago Lying-in Hospital there were only fifty-two cases of complete placental detachment. Kimbrough and Jones³ found that in 28,288 deliveries at the Philadelphia Lying-in Hospital there were 113 cases of abruptio placentae in which there was clinical evidence of placental separation.

A brief summary of the case follows:

M. H. was twenty-nine years old, white, gravida IV, para II, with a past obstetrical history of two living children and one abortion at the third month of pregnancy. Her last menstrual period prior to the fourth pregnancy was May 15, 1943. Her prenatal course was uneventful, but on January 20, 1944, she started to bleed vaginally and to experience severe abdominal pain. Upon admission to the hospital her blood pressure was 70/50, the fetal heart was slow and irregular and there was no dilatation of the cervix. Blood was started immediately and the baby was delivered by classical cesarian section, at which time the diagnosis of complete abruptio placentae was confirmed. The Wassermann test was negative, as was the urinalysis, and subsequent kidney function tests were normal. The report of the pathologist was that the placenta showed no abnormalities. The baby never was in good condition, and it died two days later of atelectasis.

A year following the first section, she had a left salpingo-oophorectomy and uterine suspension done by a general surgeon.

The patient's next pregnancy began in April, 1945. She had no difficulties during the early part of her pregnancy, but on October 25, 1946, she began to bleed vaginally. Upon admission to the hospital her blood

pressure was 90/60 and she had a hard, tetanic uterus. No fetal heart could be heard. A classical cesarian section was performed and a stillborn infant was delivered. The preoperative diagnosis of abruptio placentae was verified at operation. The mother's postoperative course was uneventful.

The sixth pregnancy began April 28, 1949. No difficulty was encountered until September 14, 1949, when she commenced to bleed vaginally in small amounts. She was put to bed, and bleeding stopped after the first day. Her pregnancy continued without further mishap until November 12, 1949, when she experienced severe abdominal pain and vaginal bleeding. She was admitted to the hospital within an hour but her blood pressure had dropped to 70/50. Fetal heart could not be heard, the head was floating and there was no dilatation of the cervix. She was immediately given 1000 c.c. of whole blood and a low cervical cesarian section was done. The placenta was completely separated from the uterus and a stillborn male was delivered. The placenta again proved to be normal. Urine was negative. The patient was given 1500 c.c. of whole blood following the operation. Her condition rapidly improved and she was sent home from the hospital on the eighth postoperative day.

Discussion

The clinical diagnosis of premature placental separation was established by the following signs and symptoms, namely, occurrence of sudden severe abdominal pain, uterine tenderness due to concealed hemorrhage, and the presence of external bleeding with shock. The diagnosis of placenta praevia was excluded by the usual clinical methods.

The choice of treatment in cases of abruptio placentae is dependent upon several factors, chief among which are the severity of the symptoms, the general condition of the patient, whether or not the patient is in labor, and the degree of cervical dilatation. In dealing with the milder degrees of separation occurring in the course of labor, in which neither the mother nor the baby present evidence of distress, it is rarely necessary to interfere with the normal course of labor. On the other hand, the more urgent cases, because of extreme loss of blood and shock require that the uterus be emptied by the quickest method compatible with the safety to the mother. In all three instances our case falls into the latter category. In neither instance was the patient in labor and there was no effacement or dilatation of the cervix. We feel that cesarian section is the method of choice in complete abruptio placentae. In the case reported in the Italian literature, the method of delivery was by internal podalic version and

(Continued on Page 1237)

From the Department of Obstetrics and Gynecology, Mt. Carmel Mercy Hospital, Detroit, Michigan.

Quicksand

UNIONS are serving advance notice of high compensation and security demands, which they admit are unreasonable. To offset these demands the unions would like to freeze the medical care costs. If they could get enough doctor's signatures to set up a pattern, their medical plan would spread from plant to plant. This would not only freeze the medical profession's incomes in the face of inflation but would subject us to bargaining, in the future, with those who would inevitably try to reduce the original fee schedule. Even salaried people are moving to get salaries raised before any possible freeze can be enacted. Should we then bind ourselves to a compensation which may become totally inadequate? Bigger and more extensive social security will be enacted which will not affect us except that taxes will go up, interest rates will remain low and the struggle for existence will grow more difficult. We believe this is but the beginning of labor's effort to control all services and finances through men they will place in all high policy governmental agencies.

Year in and year out labor has received approximately 14.3 per cent of the value of the manufactured products sold. If the average compensation had been \$1.29 an hour the past year, instead of \$1.49 there would have been enough money available for labor so that 17 per cent who were idle could have been employed. Those who do the planning, however, receive good salaries and need not worry about unemployment. In fact, unemployment is attributed to many causes other than their own mismanagement, and the cost of unemployment is covered by unemployment insurance which must be paid by the thrifty taxpayer. Furthermore strikes and unemployment reduce the average income giving the unions a talking point when they ask for a frozen income on the part of the medical profession.

Mr. Harry Becker, director of the UAW-CIO Social Security Department, made the following statement in a speech entitled, "The Problem of Prepaid Medical Care." "Organized labor feels that the demand for health insurance should be met by a comprehensive national health program, including national health insurance, developed within the framework of our national health and social security policy." We in medicine would deplore a precipitous move in that direction. We believe all government-controlled monopolies are expensive and poorly run. We challenge anyone to direct our attention to a well run efficient government bureaucracy other than the FBI. Even this department will deteriorate if interfered with by government agencies, politics, or labor. Is it any wonder, then, if we hesitate to align ourselves with an organization whose policies are so diametrically opposed to our own? No, we shall continue to work out the principles of prepaid medical services that are actuarially sound. This will be slower and not run the risk of entanglements which might lead to national insolvency. We believe allegiance to the surgical-medical insurance plan of the Hudson Motor Company's Workers or any other such plan could easily become a part of an overall scheme for National Health Insurance. We of the medical profession have offered labor management every opportunity to co-operate in working out adequate, available medical care. Their lack of co-operation would indicate, we believe, a lack of interest where the unions are not in sole control.

We do not object to any insurance plan the unions may attempt to work out. What we do object to is the contract and what it implies for the future. In answer to their objections raised to the Blue Cross and Blue Shield concerning charges in certain income brackets we offer the co-operation of our mediation committees, if satisfactory settlement cannot be arranged with the physicians concerned.

Low pay-roll incomes, offered as another reason for a frozen fee schedule, do not cover other sources of remunerations or total family compensation. Certainly any adjustment because of limited income on the part of the patient, should be brought about through the Doctor as in the past and he should get the credit for such adjustment. If concessions are made he and not the union should receive the credit.

It should be noted that while the UAW-CIO contract for the Hudson Motor Company workers was being distributed to the medical profession for signatures, new liberalizations were being added by the Michigan Medical Service. These answer in part some of the objections being raised by the unions charging incompleteness of coverage by Blue Cross and Blue Shield. The benefits shall not stop there, but will be added as fast as they can be proven actuarially sound. In this we seek the aid and co-operation of the unions.

There are many problems confronting the American people today that are more important than socializing medical care. For instance, we would like help in stopping inflation, and who could do more to stop spiraling prices and wages than the unions? We would like to take government out of private business. Why should the government try to control electric power, and make it another TVA losing enterprise, when private electric companies paid \$450,000,000 in taxes last year. We realize that raises the taxes for every man, woman, and child by more than \$3. We would like help in correcting the misnomer "Federal Aid" and have it properly cataloged in everyone's mind as "Federal Take." The Federal government takes much and returns little with lots of control. We would like to have our government admit that deficit spending is getting something for ourselves but charging it to our children.

We realize we cannot make first things first so will return to our original problem. The unions and medical profession are both interested in bringing the best medical care possible to those who labor. The unions apparently do not fear a strong centralized control or feel that they are big enough to direct statism, if it should materialize, to their own advantage. The medical profession believes in developing local government and preserving the rights of the individual. We will not bargain our freedom for any projected security. As long as there is a free America we will insist on protecting the rights of any minority group. Fundamentally, we cannot understand or condone many methods used in the union's so-called bargaining. Basically, we believe the unions fear statism as much as we do and here, if any, rests the hope of future successful planning for better health. Let us surmount this obstacle step by step and not slip off into the quicksand of socialism.

President's



Message

C. C. Humphrey M. D.

President, Michigan State Medical Society

Editorial

SABOTAGE!

MICHIGAN MEDICAL Service was developed by officers and members of the Michigan State Medical Society as a pioneer effort to make available prepaid medical and surgical services for our patients. It has become an outstanding service corporation of great value to our patients and to ourselves. Nearly two million people are now receiving its benefits in our state, to the tune of more than a million dollars a month.

In 1942, our rates were inadequate and they had to be revised. Until this year (1950), benefits have been increased, but not the rates. During the past year or two the rate of usage of our service has increased rapidly. More people out of an average thousand are being hospitalized for medical and surgical attention. One severe criticism of the Blue Cross-Blue Shield program during all the years of its existence has been that it over-crowded hospitals and made beds unavailable for private patients. A careful study of hospitalization records shows that an increasing number of people are being hospitalized for conditions which could well be cared for in the home or doctor's office and also many for purely diagnostic procedures.

Michigan Medical Service has recently published a new listing of services for which it will pay if performed in the doctor's office rather than the hospital. Michigan Medical Service will render every just care to its subscribers, but believes many of the hospitalized cases are not its proper charges.

The commercial insurance companies, our competitors, have a "fine print clause" in their contract making certain limitations which they strictly enforce. They refuse payment for many services for which we must pay.

Increased usage is a liability that can be solved only by the doctors. Every patient whom we send to the hospital is presumably entitled to have his account paid under our program, even if purely diagnostic or routine office procedures are done.

Michigan Medical Service is our property. It belongs to the medical profession which organized

it. It is our sheet anchor against the demand for compulsory health service. It is our proof that medical problems can be solved by medical men. If we sabotage our own property to the extent that we weaken its effectiveness we have not shown good judgment. We are committing sociologic and economic suicide!

Michigan Medical Service cannot continue its wonderful work if needless burdens are placed upon its facilities. We (the profession) own Michigan Medical Service. Many of us do not appreciate its value or usefulness. A prudent man always conserves his own resources.

DOCTORS' DRAFT!

THE CONGRESS has passed, and the President has signed a bill authorizing the drafting into the military services of men with certain attainments, and the age limit is fifty years. The bill, approved by organized medicine, was aimed especially at doctors and dentists. Never before in our history has the Government had to draft officers in its military departments.

The new draft law is especially aimed at the younger medical and dental men who received their training or part of it under ASTP and V-12 programs. In all, 31,176 were trained. Some failed to finish, some are physically handicapped, and some served from ninety days to twenty-one months. There are remaining 3,000 from ASTP and 2,613 from V-12, or 5,613 eligible to serve, with a medical requirement of 5,024.

The government has attempted to induce these men to volunteer, but after two months of effort about thirty doctors have entered service, one from ASTP. There must be some reason for this reluctance. A study and solution would have been advantageous, but the draft will serve the same purpose, without solving the difficulty.

We well remember what happened to the medical officers taken into military service during the last war. They were allowed to rust. Many never saw a patient for one to two years. Over 60,000 were called, making a shortage of doctors for civilian service, but a vast oversupply for the war work. This JOURNAL suggested early that the

government determine the number of doctors who would be needed, commission them and give them a short indoctrination, after which they could be sent home to their practice until needed. They could then be given a sufficient conditioning and sent to the places of need. But this was not done.

In World War I and World War II our doctors then were compelled to leave their practices, some of considerable magnitude, and serve for military pay. Our young men now are faced with the same condition. They are in their first years of practice and most making much more than the military offers, and they do not want their talents wasted as happened to the sixty thousand of World War II and 30,000 of World War I.

Assurance on these problems would have gone a long way to induce our young doctors to give back to the government some of the debt they owe.

CANCER OF THE LUNG

THE incidence of lung cancer is rapidly increasing. In Michigan in 1930, two deaths from cancer of the respiratory system were reported, both in males. In 1948, 772 such deaths were reported; 615 (80 per cent) in males, and 157 (20 per cent) in females. Cancer of the lung promises to equal or even surpass in a short time cancer of the stomach as the principal site of cancer in males.

Several reasons have been advanced for this rapid increase during the last twenty years. Improved diagnostic methods have shown that many cases of "atypical" tuberculosis, where no specific organisms could be found to explain the signs and symptoms, are in reality cancerous growths.

Smoking, particularly excessive or chain cigaret smoking, is strongly suspected of a close association with bronchogenic cancer. Wynder and Graham (J.A.M.A. p. 329, May 27, 1950), reporting on a study of 605 lung cancer patients, found more than 95 per cent "were moderately heavy to chain smokers for many years," and "the occurrence of carcinoma of the lung in a male nonsmoker or minimal smoker is a rare phenomenon (2.0 per cent)." Similar recent studies verify the above conclusions. The evidence against pipe and cigar smokers is not nearly as conclusive as that against cigaret smokers.

Inhalation of dust by miners of radioactive minerals has long been recognized as the cause

of lung cancer in such workers. The carcinogenic properties of many new synthetic products used in industry are still to be determined. The preponderance of cases in males, the ratio being five or more males to one female, suggests other possible causative factors as yet undetermined.

As with many other types of internal cancer, the majority of lung cancers are in an advanced stage when first diagnosed. The earliest symptoms are so mild as seldom to arouse the suspicion of either the patient or physician. A slight cough and a slower than usual recovery from an upper respiratory infection are ignored although they may be the first warning signs, especially in a person past middle age. Hemoptysis, which seldom occurs in early cases, usually is the symptom that brings the patient and physician together. Auscultation may reveal a wheezing r le if partial bronchial obstruction has occurred. Slight irregular fever may be noticed for some time accompanied by increasing fatigue on exertion.

Patients with the above history and symptoms should be subjected to careful and thorough and, if necessary, repeated x-ray examinations of the chest. Their bronchial secretions also should be examined for typical cancer cells. Other diagnostic measures to be employed are bronchoscopy with biopsy wherever possible. Microscopic study of aspirated pleural fluid may be helpful at times.

Where conditions permit, all these procedures may be necessary to establish the diagnosis. Reliance should never be placed on but one of them. Should none of these examinations provide a satisfactory answer to the patient's continuing symptoms, exploratory thoracotomy may be necessary to clinch the diagnosis.

In differential diagnosis, benign tumors, pulmonary abscess, pneumonia and tuberculosis must always be kept in mind.

Pneumonectomy is the only treatment offering hope for cure. Lobectomy may suffice in favorable early cases. Since the first pneumonectomy by Evarts Graham in 1933—the patient, a physician, is still carrying on an active practice—surgical removal of the affected lung has become standard procedure whose operative mortality is such that no capable thoracic surgeon should hesitate to employ it, provided other conditions are favorable.

In the mass chest x-ray examinations for tuberculosis rests an excellent opportunity for finding many cancers of the lung long before the patient is aware of any trouble. In several reports of

EDITORIAL

large numbers of chest x-ray examinations, more neoplasms of all kinds than tuberculosis were found. Full co-operation of tuberculosis and cancer organizations in these mass surveys make special chest examination programs for cancer unnecessary. As several thousand routine chest examinations are required to find a case of lung cancer, the costs of such a program make a co-operative undertaking most desirable.

As with other types of cancer, the first physician consulted by the patient with respiratory symptoms must have the possibility of malignancy in mind. In one recently reported series of lung cancer there was a delay of eight months from onset of symptoms to diagnosis. Of this delay, three and one-half months, or 44 per cent, was due to the patient, while the physician was charged with the remaining four and one-half months, or 56 per cent, of the delay. The "major factor in the average doctor's delay in diagnosis was failure to think of cancer in the differential diagnosis." (Cancer, p. 752, July, 1950.)

In the interest of greater salvage from cancer of the lung, physicians should remember that its incidence is increasing more rapidly than any other form of cancer in males; that it is curable to a large extent when found in early stages; that, unfortunately in earliest stages, its signs and symptoms are so mild as to excite no suspicion of patient or physician in the majority of cases; that periodic chest x-rays may be necessary to establish the diagnosis; that cytological examination of sputum and bronchial secretions, along with biopsy, usually clinches the diagnosis; that pneumonectomy is the only treatment of curative value and then only in early stages; that every male patient, 40 years of age or older with indefinite lung symptoms, should be considered a cancer patient until proved otherwise.

HERE IT IS!

SOME MONTHS ago we reported that labor unions had advised their locals that County Medical Societies were competent bargaining organizations for the doctors and urging that bargaining talks be instituted to have doctors accept Michigan "Uniform Fee Schedule for Government Agencies" as payment in full for any service to be rendered, regardless of whether the Union member was "over income."

On August 29, 1950, Local 154, UAW-CIO sent a two-page letter to individual doctors in the

Detroit Metropolitan area, and some other districts in the State giving a long argument and enclosing the following blank to be signed:

Date.....

Hudson Local Union No. 154, UAW-CIO
12101 Mack Avenue
Detroit 14, Michigan
Dear Sirs:

I am prepared to co-operate with the new Hudson Motor Car Company-UAW-CIO surgical-medical insurance program during the coming year (September 16, 1950-September 15, 1951) on the following basis:

1. I am willing to accept payment on the U. S. Veterans' Administration-Michigan State Medical Society fee schedule as full payment for surgical or in-hospital medical services which I may have occasion to render any insured Hudson worker who is now one of my patients or whom I accept as a patient.
2. If in future I feel I can no longer go along with this schedule as full payment, I shall notify you so that the Hudson workers may be informed accordingly.

Sincerely yours,

Signed, _____, M.D.

(Please print name as signed)

Address

It is claimed that the first week produced 750 acceptances. We hope our members who are considering signing this pledge (which is a contract) will remember three things. First, the Union has ignored the one thing they demand for themselves—collective bargaining. If a small group of their own members signed such a contract they would be promptly disciplined. Second, the doctor who signs this contract places his well-being in the hands of labor union officials who have no loyalty or consideration for him. He is by implication promised the work of the employees of the Hudson Motor Car Company, in opposition to his colleague who fails to sign. If he should find himself discontented and wishes to withdraw for any reason, then he will be advertised broadcast to the potential patients. Third, the doctor's interests are between his patients and the insurance company, not a third party—the union.

Read again the last paragraph: *If in the future I feel I can no longer go along with this schedule as full payment, I shall notify you so that the Hudson workers may be informed accordingly.*

THINK IT OVER BEFORE SIGNING.

The early, curable malignant lesion of the pancreas is silent.

JMSMS

Michigan Foundation for Medical and Health Education

A Front-line of Defense

Poverty of knowledge has caused the fall of ideologies and nations. Ignorance and free circuses have made suckers, then paupers, finally slaves out of past civilizations. Something like that is now England's lot, in a medical sense.

The Michigan Foundation for Medical and Health Education was incorporated and dedicated five years ago "to acquire, provide, use, develop, endow, and finance methods, means and facilities for postgraduate education in medicine, for education in medicine, for lay health education, and for research, fellowships and scholarships."

Now, in 1950, the goals sought by the Foundation are constantly coming closer to attainment. Free contributions coming from doctors of medicine and laymen to the funds of the Foundation have permitted the expenditure of income for a number of progressive projects.

Rural Health

As more and more medical men enter the armed services of the United States, some areas in Michigan, particularly rural ones, find themselves with increasingly inadequate health protection and service. The Foundation has, as one of its purposes, the alleviation of such conditions through the "Fund for the Encouragement of Medical Practice in Rural Areas," offering loans and counsel to qualified upperclass medical students, interns, and residents who agree to practice in such regions. The Foundation, through its sponsorship of the annual Michigan Rural Health Conferences—this year on October 20-21 on the campus of Michigan State College—is assisting in determining medical requirements and health standards of suburban and rural Michigan. Also, the Foundation contributed, together with the Michigan State Medical Society, to the financing of a survey and research conducted by the Department of Sociology of Michigan State College to further ascertain rural medical needs in the State.

Medical Knowledge Means Good Health

To combat poverty of knowledge, to strengthen the state through education in health, the Founda-

tion believes that constructive progress is best attained through voluntary efforts and contributions of progressive doctors of medicine and an informed laity. The recognized need for larger resources to carry out the objectives of the Foundation has never been greater than it is today. The first line of defense, top priority for an enduring United States, is a healthy population.

Contributions Deductible in Income Tax Computation

In his annual report to the trustees, E. I. Carr, M.D., who has been president of the Michigan Foundation for Medical and Health Education since its inception, pointed out that a ruling from the Treasury Department advises that inasmuch as the Foundation is "organized and operated exclusively for educational purposes" it is exempt from Federal Income Tax under the provisions of Section 101(6) of the Internal Revenue Code. Further, "*contributions made to the Foundation are deductible by the donors in arriving at their taxable net income.*" The Foundation offers an opportunity to give directly to an educational institution whose purpose is better health in Michigan. Furthermore, actual cash savings may be realized in income taxes payable by making contributions before the end of 1950.

Regular Contributions Popular

Many of those sympathetic with the Foundation's work—laymen as well as M.D.s—are giving specific modest amounts annually, semi-annually, quarterly, or monthly to continue and expand its effectiveness.

To advance the health and medical education purposes of the Foundation, the medical profession has joined with attorneys, trust officers, and other community-conscious members of society in contributing, and by suggesting the Foundation to others as a proper recipient of gifts and bequests. As in other things, these words apply to medical and health education: "Ye shall know the truth, and the truth shall make you free."

Contributors to the Foundation Fund (To September 15, 1950)

Allegan County Medical Society; R. W. Alles, M.D., Detroit; Anonymous; Anonymous (Memory of Mother); Anonymous (Woman's Auxiliary member); G. E. Anthony, M.D., Flint; R. F. Asselin, M.D., Detroit.

R. H. Baribeau, M.D., Battle Creek; P. S. Barker, M.D., Ann Arbor; Barry County Medical Society; W. E. Barstow, M.D., St. Louis; J. H. Beaton, M.D., Grand Rapids; M. G. Becker, M.D., Edmore; A. P. Biddle, M.D., and Grace W. Biddle, Detroit*; A. W. Blain, M.D., Detroit; Branch County Medical Society; Lionel Braun, M.D., Detroit; C. D. Brooks, M.D., Detroit; J. D. Bruce, M.D., Ann Arbor*; A. S. Brunk, M.D., Detroit; D. H. Burley, M.D., Almont; Mary Lou Byrd, M.D., Grand Rapids.

A. D. Calomeni, M.D., Lansing; A. C. Carlson, M.D., Cottonwood, Arizona; E. I. Carr, M.D., Lansing; H. R. Carstens, M.D., Philadelphia, Pa.; Donald Chandler, M.D., Grand Rapids; L. G. Christian, M.D., Lansing; R. E. Clark, M.D., Detroit; D. E. Cohn, M.D., Detroit; B. R. Corbus, M.D., Grand Rapids; Clinton County Medical Society; C. V. Costello, M.D., Holland*; H. D. Crane, M.D., Grand Rapids; J. M. Croman, Jr., M.D., Mt. Clemens; H. H. Cummings, M.D., Ann Arbor; A. C. Curtis, M.D., Ann Arbor.

J. S. DeTar, M.D., Milan; Dickinson-Iron County Medical Society.

Eaton County Medical Society; C. W. Ellis, M.D., and B. W. Ellis, M.D., Lansing.

W. G. Fenner, M.D., Detroit; O. O. Fisher, M.D., Detroit; A. C. Furstenberg, M.D., Ann Arbor.

L. J. Garipey, M.D., Detroit; Genesee County Medical Society; J. L. Gillard, M.D., Muskegon; R. W. Gillman, M.D., Detroit; Gratiot-Isabella-Clare County Medical Society; Grand Traverse-Leelanau-Benzie County Medical Society.

T. J. Heldt, M.D., Detroit; R. F. Herschelmann, M.D., Detroit; Lee Hileman, M.D., Ecorse; H. C. Hill, M.D., Howell; Hillsdale County Medical Society; L. J. Hirschman, M.D., Detroit; L. E. Holly, M.D., Muskegon; A. P. Holstein, M.D., Manchester; Houghton-Baraga-Keweenaw County Medical Society; R. J. Hubbell, M.D., Kalamazoo; Huron County Medical Society; F. P. Husted, M.D., Bay City; W. A. Hyland, M.D., Grand Rapids.

IDWTGTRMB Club; Ingham County Medical Society; S. W. Insley, M.D., Detroit*.

Jackson County Medical Society; Joint Committee on Health Education; Francis Jones, M.D., Lansing*.

R. E. Kalmbach, M.D., Lansing; C. G. Kirchgeorg, M.D., Frankenmuth; Theodore Kilvoord, M.D., Battle Creek.

Ruth E. Lalime, M.D., Bear Lake; F. H. Lashmet, M.D., Petoskey; W. W. Lathrop, M.D., Jackson; V. S. Laurin, M.D., Muskegon; Lenawee County Medical Society; J. R. Lentini, M.D., Grand Rapids; Simon Levin, M.D., Houghton; S. R. Light, M.D., Kalamazoo.

Macomb County Medical Society; Manistee County Medical Society; Marquette-Alger County Medical Society; R. G. B. Marsh, M.D., Tecumseh; W. P. Marshall, M.D., Kalamazoo; E. F. McMillan, M.D., Charlevoix; Mason County Medical Society; G. L. McKillop, M.D., Gaylord; Mecosta-Osceola-Lake County Medical Society; H. A. Meinke, M.D., Hazel Park; Menominee County Medical Society; Michigan Medical Service; Mrs. K. B. Miner, Flint; Gertrude F. Mitchell, M.D., Detroit; Monroe County Medical Society; J. C.

Montgomery, M.D., Detroit; H. R. Moore, M.D., Newaygo; H. L. Morris, M.D., Detroit; Muskegon County Medical Society; R. L. Mustard, M.D., Battle Creek.

Cora Boyce Neal, Grand Rapids.

Ontonagon County Medical Society.

Wm. H. Parks, M.D., Petoskey; A. W. Petersohn, M.D., Battle Creek; R. C. Pochert, M.D., Owosso.

L. B. Rasmussen, M.D., Vicksburg; G. L. Renaud, M.D., Detroit; Lawrence Reynolds, M.D., Detroit; Meshel Rice, M.D., Detroit; J. M. Robb, M.D., Detroit; J. M. Robb, M.D., Detroit (memorial to the late J. D. Bruce, M.D.); Howard Robinson, M.D., Detroit; John Rodger, M.D., Bellaire; H. R. Rothman, M.D., Detroit; W. Z. Rundles, M.D., Flint.

G. B. Saltonstall, M.D., Charlevoix; Sanilac County Medical Society; C. A. Scheurer, M.D., Pigeon; Edna Schrich, M.D., Holland; R. J. Seime, M.D., Ypsilanti; G. W. Sippola, M.D., Detroit; E. F. Sladek, M.D., Traverse City; F. N. Smith, M.D., Grand Rapids; R. Earle Smith, M.D., Grand Rapids; St. Clair County Medical Society; Shiawassee County Medical Society; Ethelbert Spurrier, M.D., Detroit; W. J. Stapleton, Jr., M.D., Detroit; H. B. Steinbach, M.D., Detroit; Gabriel Steiner, M.D., Detroit; R. H. Stevens, M.D., Detroit*; R. A. Stiefel, M.D., Battle Creek; Elizabeth A. Stone, M.D., Romeo; C. L. Straith, M.D., Detroit; R. H. Strange, M.D., Mt. Pleasant.

R. E. Toms, M.D., Brooklyn, N. Y.

C. E. Umphrey, M.D., Detroit.

Jerrian VanDellen, M.D., East Jordan; E. E. Vivirski, M.D., Jackson.

Ralph Wadley, M.D., Lansing; R. W. Waggoner, M.D., Ann Arbor; R. V. Walker, M.D., Detroit; Wash-tenaw County Medical Society; H. B. Weaver, M.D., Greenville; H. L. Weitz, M.D., Traverse City; K. N. Wells, M.D., Spring Lake; C. G. Wencke, M.D., Battle Creek; E. L. Whitney, M.D., Detroit; Lt. Comm. Frances L. Willoughby, M.C., Traverse City; S. B. Winslow, M.D., Battle Creek; E. R. Witwer, M.D., Detroit*; Woman's Auxiliary to the Michigan State Medical Society; J. S. Wyman, M.D., Flint.

D. A. Young, M.D., Detroit.

Margaret H. Zalen, M.D., Kalamazoo; C. R. Zolliker, M.D., Imlay City.

WHY NURSING EDUCATION?

(Continued from Page 1206)

Nursing service requires varying degrees of knowledge and skill. Nursing education provides preparation for professional nurses and for practical nurses. In-service training programs for all nursing service personnel are essential if all groups are to work co-operatively to provide better nursing care. Nursing educators realize that providing good nursing care is a responsibility of the nursing profession. In order to provide total patient care, hospital administrators and members of the medical and nursing professions must plan and work co-operatively to accomplish this mutual goal.

*Deceased

Michigan's Department of Health

Albert E. Heustis, M.D., Commissioner

The thirtieth annual Michigan Public Health Conference will be held in the Pantlind Hotel and Civic Auditorium, Grand Rapids, November 29 to December 1 and will consider "New Weapons in the Battle Against Disease" and the role of public health people in civil defense and in time of disaster.

Members of the Program Committee for the Conference include Dr. Virgil Slee, Chairman, Director of the Barry County Health Department and representatives of professional public health organizations.

Physicians interested are cordially invited to attend any of the Conference sessions. Copies of the Program may be obtained from the Michigan Department of Health.

* * *

A new film of interest to physicians has been added to the film loan library: "Breast Self-Examination," 15½ minute sound, color film produced by the American Cancer Society, emphasizes the need for regular breast examination by every woman and illustrates in detail the technique of self-examination. The film is designed for adult women and is not intended for high school students.

* * *

Dr. F. S. Leeder, Director of the Division of Disease Control, Records and Statistics, was certified to the American Board of Preventive Medicine in Public Health in the Founders' Group.

* * *

The University of Wisconsin recently announced a new rodenticide, "Warfarin." This announcement states that the poison is slow acting and relies upon the accumulation of small quantities consumed over a period of days. This has a distinct advantage of protecting humans and pets from an overdose of the poison. Rats and mice, after taking the poison for several days, become drowsy and begin to walk with a slow and measured gait. They finally die from internal hemorrhage.

* * *

As a result of the analysis of dental data recently obtained from the Grand Rapids study on the effect of artificially fluoridating public water supplies for the partial control of dental decay, the Michigan Department of Health now recognizes the usefulness of this procedure.

While the evidence is not conclusive, due to the few years that the experiment has been conducted (since January, 1945), there is sufficient evidence to indicate that the treatment is beneficial. Dental decay experience of the five-, six-, and seven-year-old children of Grand Rapids, where 1 ppm of fluoride is added artificially to the water, compares favorably with that of the children of the same age groups in Aurora, Illinois, where the water naturally contains 1.2 ppm of fluoride. Thus, the Grand Rapids experiment partially answers the question of whether artificially fluoridated water is as

effective in reducing dental decay as water naturally containing fluoride. The study will be continued.

From the evidence available to date the Michigan Department of Health is now in a position to recommend the application of fluoride to public water supplies which are deficient in this element. Many water supplies in Michigan naturally contain some fluoride, but few contain it in sufficient amount to reduce dental decay.

Before a public water supply is treated with fluoride it is necessary that the Michigan Department of Health be informed. Approval of the local dental and medical professions is desirable.

* * *

Dr. Fanny H. Kenyon, associate chief, Section of Maternal and Child Health, has been appointed chairman of the Health and Safety Committee of the National Federation of Business and Professional Women's Clubs.

* * *

A total of 146 cases of animal rabies were reported in Michigan between January 1 and September 1, thirty of them in the past two months. The majority of the new cases are in the southeastern section of the state.

The Michigan Department of Health advises the immunization of all dogs; reporting and impounding of all stray animals; confining biting animals for ten days; and also advises those bitten by animals to see their physicians at once.

* * *

The divorce rate in Michigan has dropped one-half in the past three years, but in 1949 there was still one divorce for every 3.3 marriages in the state.

While 10.2 out of every thousand Michigan people were divorced in 1946, only 5.1 out of every thousand were divorced in 1949. Divorces, which declined from a peak of 29,158 in 1946 to 16,017 in 1948, were up to 16,274 in 1949.

Marriages continued a downward trend. In 1949, only 53,109 marriages were performed as compared to the peak of 78,808 in 1946.

* * *

Poliomyelitis cases have fallen to about a third of the number reported at this time last year. Based on the calendar year, there have been 583 cases of polio reported this year through September 1, compared with 1,570 for the same period last year.

* * *

Congenital syphilis in Michigan has not decreased at the rate of other forms of syphilis during the past decade. The Section of Maternal and Child Health and the Division of Venereal Disease Control are joining forces in an effort to reduce the incidence of venereal disease in the state. To accomplish the reduction will require the concerted effort of physicians, health officers, and nurses.

University of Michigan

Diagnostic Methods, Clinical and Laboratory Interpretation

University Hospital, Ann Arbor, Michigan

November 7-10, 1950, Inclusive

This program is designed to illustrate the application of clinical laboratory methods to clinical practice. Emphasis is placed on the selection, scope and interpretation of laboratory methods. The subject matter is presented for the practicing physician. Certain laboratory tests will be demonstrated.

TUESDAY, NOVEMBER 7

A.M.		
8:00- 9:00	Registration. Room 2040, University Hospital.	
9:00-10:00	Hematologic Methods.	Dr. Meyers
10:00-11:00	The Treatment of the Macrocytic and Iron Deficiency Anemias.	Dr. Sturgis
11:00-12:00	Blood Changes Associated with Infection.	Dr. Miller
12:00-12:30	Demonstration of Hematologic Techniques.	Staff
P.M.		
1:30- 2:30	Hodgkin's Disease and the Lymphomas. Therapy, including the Nitrogen Mustards.	Dr. Meyers
2:30- 3:30	Leukemia.	Dr. Bethell
3:30- 4:00	Demonstration. Bone Marrow Aspiration. Preparation of Material.	Dr. Bethell
		Miss Fritzell
4:00- 5:00	X-Ray Demonstration. Leukemia and Lymphoma.	Dr. Lampe

WEDNESDAY, NOVEMBER 8

A.M.		
9:00- 9:45	Infectious Mononucleosis. Clinical, Hematologic and Serologic Manifestations.	Dr. Zarafonitis
9:45-10:30	Blood Coagulation. Classification of Hemorrhagic Disease.	Dr. Mallery
10:30-11:30	Blood Types and Rh Factor Transfusions.	Dr. Meyers
11:30-12:30	Demonstration of Blood Typing, Cross matching Blood Bank, and Transfusion Techniques.	Miss Marcos
P.M.		
1:30- 2:30	Anticoagulant Therapy, Heparin and Dicumarol.	Dr. Duff
2:30- 4:30	Syphilis: Spinal fluid and Blood Serology. Relation of Serology to Treatment.	Dr. Curtis
4:30- 5:00	Demonstration of Serologic Tests.	Dr. Kahn, Miss McDermott

THURSDAY, NOVEMBER 9

A.M.		
9:00-10:00	Infectious Disease. General Principles for Laboratory Diagnosis.	Dr. Braude
10:00-10:30	Demonstration: Blood Culture Techniques.	Dr. Braude, Miss Conner
10:30-12:00	Bacterial Infections: Specific Clinical and Laboratory Diagnostic Methods.	Dr. Braude
P.M.		
1:30- 2:30	Virus and Rickettsial Disease.	Dr. Zarafonitis
2:45- 3:45	Yeast, Molds, and Actinomycetes.	Dr. Cawley
3:45- 4:30	Parasitic Infections: Amoebiasis, Malaria and Intestinal Protozoa.	Dr. Mallery
4:30- 5:00	Demonstration.	Dr. Mallery

FRIDAY, NOVEMBER 10

A.M.		
9:00-10:00	Blood Biochemistry: Common Problems. Amylase, Lipase and Phosphatase Determinations.	Dr. Chandler
10:00-11:00	Carbohydrate Metabolism. Diabetes. Hypo- and Hyper-insulinism. Blood sugar and Tolerance Tests.	Dr. Bauer
11:15-12:30	Disorders of the Adrenal Gland.	Dr. Conn
P.M.		
1:30- 2:45	Disorders of the Thyroid and Parathyroid Basal Metabolism.	Dr. Beierwaltes
3:00- 4:00	Liver Function. Bilirubin Cycle.	Dr. Mallery
4:00- 5:00	Kidney Function. Blood urea, Creatinine, Clearance and Concentration Tests.	Dr. Newburgh



"A high percentage of cases of seasickness and carsickness can be aborted or prevented by suitable doses of dimenhydrinate (Dramamine)."

—Council on Pharmacy and Chemistry, New and Nonofficial Remedies, J.A.M.A. 143:815 (July 1) 1950.



DRAMAMINE[®] Brand of Dimenhydrinate—for the prevention or treatment of motion sickness—is supplied in 50 mg. tablets and in liquid form.



RESEARCH IN THE SERVICE OF MEDICINE **SEARLE**

In Memoriam

Robert J. Beeby, M.D., of West Branch, Michigan, was born October 7, 1875, in Syracuse, New York, and was graduated from the Hahnemann Medical College and Hospital in 1905. He served as Chief of the Medical Staff at Kelly Field, Texas, during World War I, was a past president of the Medical Society of North Central Counties, a former member of the Michigan State Medical Society and the American Medical Association. Doctor Beeby had retired from active practice several years ago. He was seventy-four at the time of his death on March 1, 1950.

* * *

Frank W. Hannum, M.D., of Muskegon, Michigan, was born July 27, 1888, and was graduated from the Rush Medical College in 1914. He was a member of the Muskegon County Medical Society, the Michigan State Medical Society and the American Medical Association. Doctor Hannum had practiced medicine in Muskegon for thirty-three years. He died April 19, 1950, at the age of sixty-one.

Charles T. Eckerman, M.D., of Muskegon, Michigan, was born March 6, 1875, in Grand Rapids, Michigan, and was graduated from the Bennett College of Eclectic Medicine and Surgery in 1901. He was a member of the Muskegon County Medical Society, a life member of the Michigan State Medical Society and a member of the American Medical Association. Doctor Eckerman had practiced medicine in Muskegon since 1906 and had been Muskegon County Physician for twenty-three years. He died March 4, 1950, in Muskegon at the age of seventy-five years.

* * *

Franklin Wesley Sassaman, M.D., Charlotte, Michigan, was born at Edwardsburg, Michigan, in 1867, and was graduated from the University of Illinois Medical School in 1900. He was a former member of the Eaton County Medical Society, the Michigan State Medical Society and the American Medical Association. Doctor Sassaman died January 13, 1950, in Charlotte, Michigan, at the age of eighty-two.

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of all clothing you find in this establishment.

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OCTOBER 16-21



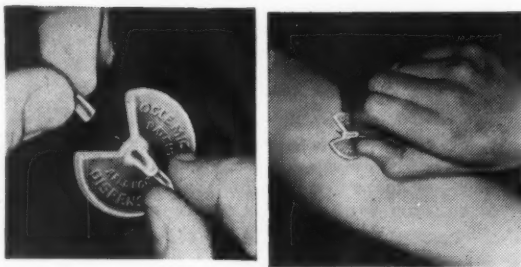
Communities throughout the nation are preparing to mark this important event in popular health education. A series of full color posters are nationally distributed in schools, colleges, factories, Y's, clinics, health centers and other institutions. These two heavily illustrated booklets have been widely accepted by physicians everywhere for distribution to their patients. Their titles are: "Blue Prints for Body Balance" and "The Human Back . . . its relationship to Posture and Health." Ask for samples or the quantity you need on your letterhead. Write to **SAMUEL HIGBY CAMP INSTITUTE FOR BETTER POSTURE**, Empire State Building, New York 1, N. Y. Founded by S. H. Camp and Company, Jackson, Mich.



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**DIAGNOSIS OF PREGNANCY
IN 30 to 60 minutes**



Based on the skin test for pregnancy developed at the Univ. of Illinois (Am. J. Obst. and Gynec., 41-431-1941). The Q-Test uses Ogle Micro-dispenser, facilitating intradermal injection of 1/50 cc. primiparous colostrum solution.

SPEED: Few seconds for intradermal injection; results apparent in 30 to 60 minutes.

ACCURACY: 97.7 per cent in recent clinical tests.

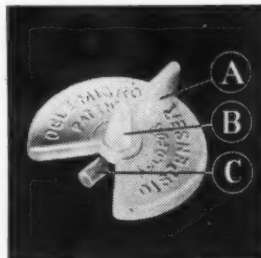
CONVENIENCE: The Q-Test is a complete unit requiring no other equipment, chemicals or bottles.

PATIENT REACTION: Enthusiastic, since results can be known at the first office visit.

ECONOMY: Cost considerably lower than pregnancy tests requiring laboratory analysis.

Easy to Use

Hold dispenser by its fin "A." Remove tip protector "C" from needle and place flat on flexor part of forearm as illustrated. Gently push dispenser forward until needle disappears under top layer of skin. Press bulb "B" firmly. Results apparent in 30 to 60 minutes.



Complete illustrated instructions enclosed with each Q-Test.

THE G. A. INGRAM COMPANY

4444 Woodward Avenue, Detroit 1, Michigan

Communications

September 8, 1950

Dr. Wilfrid Haughey, Editor
610 Post Building
Battle Creek, Michigan

Dear Dr. Haughey:

It has frequently come to my attention that patient subscribers to Blue Shield and Blue Cross ask for and demand hospitalization for purely diagnostic purposes. As you know, this is not one of the benefits provided by either of these organizations.

During the last year, both Blue Cross and Blue Shield experienced unusually high rates of subscriber utilization and I am sure that some of this was due to the above stated reason, and excessive utilization has resulted in an increase in subscriber premium rates.

I believe that as Editor of the State JOURNAL, you could repeatedly call to the attention of our membership that Blue Shield is the Doctor's Company and that each and every one of us are stockholders in it, and as such we should be interested in doing all we can to keep our rates within reasonable limits that we can meet competition, which is becoming more keen all the time.

I know that it takes courage for the doctor to tell his patient that purely diagnostic procedures are not benefits under their contract with Blue Shield, but nevertheless such is the case and the patient should be told so.

Sincerely yours,

E. C. BAUMGARTEN, M.D.

* * * *

HEADQUARTERS FIFTH ARMY

1660 East Hyde Park Blvd.

Chicago 15, Illinois

August 21, 1950

Dr. L. Fernald Foster, Secretary
Michigan State Medical Society
2020 Olds Tower
Lansing 8, Michigan

Dear Dr. Foster:

The Department of the Army has directed this headquarters to select Reserve officers of the Medical Corps for call to extended active duty in the very near future. Your State will be required to furnish a percentage of the quota allotted to Fifth Army.

To assure that no Reserve Officers are called to active duty who are essential to the health of the community and, further, to determine the correct status of those called, the co-operation of your society will be most helpful. The method to be employed in complying with the Department of the Army directive is indorsed by the American Medical Association.

The Department of the Army has stated that officers in the following categories will not be called presently:

- Reserve medical officers who have not completed at least one year of intern training.

(Continued on Page 1222)

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The Vaculimb fits closely and accurately, producing a feeling of lightness, obviating the usual pumping action which causes irritation.

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(Continued from Page 1220)

- b. Reserve medical officers who are senior residents prior to completion of the current year's training.
- c. Reserve medical officers now pursuing a full-time postgraduate course of instruction in medicine, or in sciences allied to medicine at a college, university, or similar institution of higher learning, until completion of the current academic year of such training.
- d. Reserve medical officers whose activity in teaching, research, and allied endeavors is considered necessary to the maintenance of the national health, safety, or interest.
- e. Reserve medical officers residing in communities, the health of which would be unduly jeopardized if such officers were to be ordered to extended active duty.

The Chief of the Military District for your State will be directed by the Army Commander to submit to you from time to time names of Reserve medical officers residing in your State. It is requested that your society determine the status of each named officer in relation to the categories for deferment listed above, and return the lists to the Chief of the Military District at the earliest practicable date. Should an officer come under any of the categories for deferment, this fact should be specifically stated in your reply to the district headquarters.

For your information, Reserve medical officers who volunteer for extended active duty for at least 21 months under the present program prior to being ordered to duty will be entitled to the extra pay of \$100.00 per month as provided for under Public Law 365, 80th Congress.

The Chief of the Military District must submit the list of names for the first quota to this headquarters by September 4, 1950. The shortness of time given us to select the first group may preclude your society from obtaining the help of other local societies in your State. We have been advised that there will be other calls and it is hoped that more time will be given you in your subsequent selections. Therefore, if you desire to assist us in selecting the present quota it may have to be accomplished at your level.

If your society does not desire to assist, or is incapable of assisting in this matter, please advise me as soon as possible.

Very truly yours,
(signed) E. W. BILLICK, Colonel,
Medical Corps, Army Surgeon

It is disclosed in the Hoover Report that the Executive Branch spends almost \$50,000,000 a year for printing which is done by the Government Printing Office. . . . Yet, separate executive agencies also operate 389 printing or duplicating facilities of their own at an added cost of \$25,000,000 a year. . . . Last year the amount of free mail sent out by the Government Printing Office at the expense of the taxpayers, much of it destined for wastebaskets, cost \$75,000,000. . . . Included in the collection of pamphlets issued by the Government Printing Office in the past ten years are the following fascinating titles: "Methods of Catching and Killing Vagrant Cats"; "Fleas of North America"; "How to Tell the Sex of a Watermelon"; "Mist Netting for Birds in Japan"; "Habits, Food and Economic Status of the Band-Tailed Pigeon."—AAPS News Letter, April, 1950.



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OCTOBER, 1950

Say you saw it in the Journal of the Michigan State Medical Society

1223



NEWS MEDICAL

Michigan Authors

J. H. Maxwell, M.D., Ann Arbor, published an article, "Acute Suppuration Frontal Sinus Intracranial Complications," in the *Annals of Otolaryngology, Rhinology and Laryngology*, June, 1950.

William S. Reveno, M.D., and Herbert Rosenbaum, M.D., Detroit, published an article, "Tapazol Therapy In Hyperthyroidism," in *The Journal of the American Medical Association*, August 19, 1950.

E. H. Steffensen, M.D., J. A. Olson, M.D., R. R. Margolis, M.D., R. W. Smith, M.D., and E. L. Whitney, M.D., of Detroit, published an article, "The Experimental Use of Cortisone in Inflammatory Eye Disease," in the *American Journal Ophthalmology*, July, 1950.

A. D. Ruedemann, M.D., Detroit, published an article, "Beta Radiation in Industrial Ophthalmology," in *Eye Digest*, Watson Gorley Eye Foundation, August, 1950.

Delmar F. Weaver, M.D., of Detroit, published an article, "Tumors of the Face," in the *Archives of Otolaryngology*, August, 1950.

The Symposium on Primary Chorioretinal Aberrations with Night Blindness—"Genetics" Harold F. Falls, M.D., Ann Arbor, and "Treatment and Conclusions," by F. Bruce Fralick, M.D., Ann Arbor—was published in the *Transactions of the American Academy of Ophthalmology and Otolaryngology*, July-August, 1950.

George L. Waldbott, M.D., Detroit, published an article, "Pollen Injections During Hay Fever Season," in *GP*, journal of The American Academy of General Practice, September, 1950.

Max R. Burnell, M.D., Detroit, published an article, "Selective Placement in Industry," in *The Journal of Medicine in Industry*, September, 1950.

Reed M. Nesbit, M.D., and William C. Baum, M.D., of Ann Arbor, are authors of an original article entitled "Prostatic Carcinoma" which appeared in *JAMA* of August 12.

William S. Reveno, M.D., and Herbert Rosenbaum, M.D., of Detroit, are authors of an original article entitled "Tapazol Therapy in Hyperthyroidism" which appeared in *JAMA* of August 19, 1950.

W. H. Huron, M.D., Iron Mountain, Michigan, former MSMS Councilor and a member of the AMA Legislative Committee, recently appeared before The Council of the State Medical Society of Wisconsin. Dr. Huron spoke to the group on August 16 in Madison and discussed "Legislation Affecting Medicine."

An MSMS Committee for the inspection of the Michigan State Veterans Facility at Grand Rapids (a state Institution) has been appointed, at the invitation of the

Michigan Civil Service Commission. The personnel of the Committee is: R. J. Hubbell, M.D., Kalamazoo, Chairman; Ethan B. Cudney, M.D., Pontiac; Harvey C. Hansen, M.D., Battle Creek; C. A. Paukstis, M.D., Ludington; and R. W. Teed, M.D., Ann Arbor.

"Doctor Lucius A. Farnham Day" recently was celebrated by the Oakland County Medical Society which utilized an afternoon and evening scientific program, plus a banquet, to honor Dr. Farnham, who for many years has done yeoman service for the Oakland County Medical Society.

Congratulations, Doctor Farnham!

D. B. Ruskin, M.D., formerly Assistant Superintendent and Clinical Director of Caro State Hospital for Epileptics has opened an office in the Second National Bank Building, Saginaw, Michigan, for practice of Neurology and Psychiatry.

The American College of Chest Physicians is conducting an extensive Postgraduate Course on Diseases of the Chest, sponsored by the Council on Postgraduate Medical Education and the New York State Chapter of the American College of Chest Physicians at the Hotel New Yorker, November 13-18, 1950. The schedule of courses may be obtained from the American College of Chest Physicians, 500 N. Dearborn, Chicago 10, Illinois.

James W. Rae, Jr., M.D., Detroit, lead the course taught at the American Congress of Physical Medicine, on "The Clinical Use and Dangers of Microwave" on August 28, 1950, Statler Hotel, Boston.

M. K. Newman, M.D., Detroit, presented a paper at the American Congress of Physical Medicine, Statler Hotel, Boston, on August 29, 1950, entitled "Observations and Effects of Low Frequency Currents in Spastic and Hyperkinetic States."

AMA Committee Reports on British Health Service.—Conclusions of the five-man AMA Committee to Study Medical Care in England make it clear that the tremendously expensive experiment carried out under the National Health Act has degraded the practice of medicine and failed to improve the health of the British people.

The Board of Trustees last spring appointed five physicians qualified in internal medicine, surgery, pediatrics, general practice and industrial health to spend not less than six weeks in England, Wales and Scotland to in-

(Continued on Page 1226)

An Observation on the Accuracy of Digitalis Doses

Wüthering made this penetrating observation in his classic monograph on digitalis: "The more I saw of the great powers of this plant, the more it seemed necessary to bring the doses of it to the greatest possible accuracy."¹

To achieve the greatest accuracy in dosage and at the same time to preserve the full activity of the leaf, the total cardioactive principles must be isolated from the plant in pure crystalline form so that doses can be based on the actual weight of the active constituents. This is, in fact, the method by which Digilanid® is made.

Digilanid contains all the *initial* glycosides from Digitalis lanata in crystalline form. It thus truly represents "the great powers of the plant" and brings "the doses of it to the greatest possible accuracy".

Clinical investigation has proved that Digilanid is "an effective cardioactive preparation, which has the advantages of purity, stability and accuracy as to dosage and therapeutic effect."²

Average dose for initiating treatment: 2 to 4 tablets of Digilanid daily until the desired therapeutic level is reached.

Average maintenance dose: 1 tablet daily.

Also available: Drops, Ampuls and Suppositories.

1. Wüthering, W.: An account of the Foxglove, London, 1785.
2. Rimmerman, A. B.: Digilanid and the Therapy of Congestive Heart Disease, Am. J. M. Sc. 209: 33-41 (Jan.) 1945.

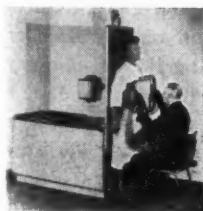
Literature giving further details about Digilanid and Physician's Trial Supply are available on request.

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Now! TUBADIL* more dependable relief in TRAUMATIC INJURY

In the July 1st, 1950 (p. 791) **Journal of the American Medical Association**, Dr. J. D. Fuller reports his results with **TUBADIL** in treating the pain resulting from traumatic injury:

TUBADIL "produces a remarkably steady hourly output of the drug into the system and carries such a high factor of safety that the drug may be readily given to outpatients."

"Dosage and clinical action may be adequately and easily controlled. Clinical action is rigidly predictable."

"... the use of such a preparation will safely give more prolonged relief than can be provided by morphine-like substances."

TUBADIL—Each cc. contains 25 mg. d-tubocurarine chloride pentahydrate in a menstruum of peanut oil, oxysterol derivatives, and beeswax.

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(Continued from Page 1224)

quire into the workings of the National Health Act and its probable future effect.

The report of the committee, composed of Walter B. Martin of Norfolk, Va., member of the Board of Trustees, Grover C. Penberthy of Detroit, Heyworth N. Sanford of Chicago, Ulrich R. Bryner of Salt Lake City, and Carl M. Peterson of Chicago, secretary of the Council on Industrial Health, was made to the House of Delegates in San Francisco and appears in the August 19 issue of *The Journal of the American Medical Association*.

In the course of the study, the committee members interviewed officers of the British Medical Association, Ministry of Health, and Fellowship for Freedom in Medicine; staff members of medical schools and hospitals, and a large number of general practitioners and others concerned with carrying out provisions of the service.

In summary, their fine report yields these conclusions:

1. The total cost of the service has far outstripped all estimates, and there is no evidence that the peak has been passed.

2. Despite the great amount expended for medical care in England, there is no present evidence that it has in any significant way improved the health of the people, or added to their happiness. All general hospitals have long waiting lists, in some categories as long as six months to two years. Out-patient departments are bulging. Officers of general practitioners in industrial areas are overcrowded and their facilities are grossly inadequate. Funds available for medical care have been dissipated on services that are not essential and essential services have suffered.

3. The tendency of the present system is to degrade the general practitioner to the level of a clerk or a guidepost to the specialist.

4. The service has produced a greater inequality of distribution of doctors, in proportion to population, and has diluted the quality of medicine.

5. It has added nothing to preventive medicine, but has disrupted public health work and produced serious problems in tuberculosis control and preventive dentistry.

6. It has created an almost complete autocratic control of medicine through concentration of financial power in the central government and the authority given the Minister of Health to govern by directions having the weight of law.

7. Abuses of the service are evident everywhere and must lead to more regulations, tighter enforcement, further limitations on freedom and further deterioration of the quality of medicine.

* * *

Army Points Toward More Efficient Use of Medical Personnel.—In an attempt to cut down on the number of reserves to be called, Army is reducing its *non-military patient load*, recruiting more *civilian* physicians and putting more *efficient* policies into effect. One step is the decision not to accept more VA patients in Army hospitals, a restriction which will be extended to Navy hospitals in the near future. Another is an appeal to civilian physicians to accept contracts for nonmilitary

(Continued on Page 1228)



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(Continued from Page 1226)

duty in Japan and Okinawa, at salaries ranging from \$6,400 to \$11,000. Army is also refusing to accept reserve volunteers for one year of active duty, and requiring them to agree to 21 months. More important for men who are or will be in service, Army has laid down new rules which it hopes will prevent waste of military manpower in preliminary stages of mobilization. Two examples: Although an infantry division is authorized 42 physicians, only 17 will be retained by it during training period; remainder will be assigned to hospital serving the division for this period. In the case of 1,000-bed general hospital, only three physicians and two nurses will initially be called; balance will stay in civilian life until receipt of warning orders for hospital's deployment.

* * *

Doctors Use New Drug Against Toxic Goiter.—Promising results in treating patients for toxic goiter with a new synthetic drug, tapazol, are reported by two doctors from Wayne University College of Medicine, Detroit.

These findings should be considered preliminary. The drug has been used in only eighteen patients and observations have covered only a six-month period, Drs. William S. Reveno and Herbert Rosenbaum say in the August 19, 1950, *Journal of the American Medical Association*.

Tapazol is not now generally available to doctors. Its use is limited to experimental studies.

The drug is an antithyroid compound with action twenty-five times as powerful as propylthiouracil, a compound commonly used in treating overactivity of the thyroid gland. Abatement of symptoms occurred in patients with toxic goiter variously five, six and eight weeks after administration of tapazol was begun, according to the article. Two patients who had relapsed after treatment with propylthiouracil were relieved after fifty-seven and fifty-one days of treatment with tapazol, respectively.

"In the small group of patients observed, tapazol exhibited effective antithyroid activity closely resembling that of propylthiouracil but with a potency approximately twenty-five times greater," the doctor say, adding:

"Toxic reactions were not encountered, but more time and treatment of a larger number of patients will be required for assessment of this highly important factor."

* * *

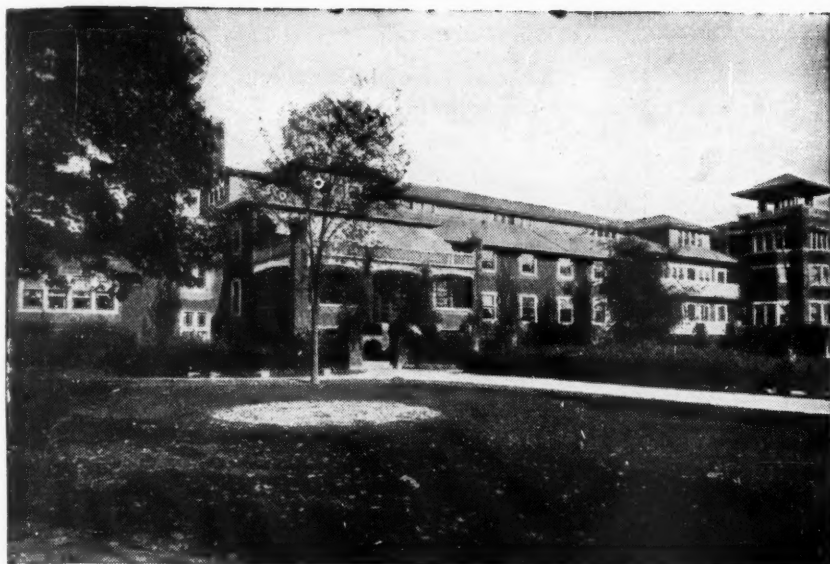
Veterans Administration announced that 6 new hospitals opened their doors to veteran-patients in September, setting a new record for activation of V-A installations.

Totaling 1,450 beds, the hospitals are located in Saginaw, Michigan; Marlin, Texas; Grand Island, Nebraska; Spokane, Washington; Shreveport, Louisiana, and Altoona, Pennsylvania.

The new hospital beds come at a time when they're particularly needed, V-A said.

Recently, at the request of the Department of Defense, V-A stopped admissions of veterans to all Army hospitals within the United States, except for emergencies. The move, it was explained, was caused by the Army's

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(Continued from Page 1228)

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need for more hospital beds due to the Korean situation.

The six new hospitals represent half of the dozen hospitals V-A expects to open before the end of the year. The remainder have a total of 2,075 beds.

The 200-bed Saginaw hospital admitted its first patients on August 28, and was dedicated on September 3.

Clinics in the five-story main hospital building include six examining rooms, a pharmacy, dental unit, x-ray department, general laboratory, orthopedic brace shop and facilities for medical rehabilitation. The operating suite contains two major and two minor operating rooms.

* * *

The Fourth Clinical Session of the American Medical Association, designed primarily for the general practitioner, will be held in Cleveland, December 5-8.

The scientific sessions and the scientific and technical exhibits will be presented in the Cleveland Municipal Auditorium. Meetings of the House of Delegates will be held in the Statler Hotel. These sessions of the body elected to govern the affairs of the AMA are attracting more and more nondelegate physicians each year.

Outstanding clinical teachers with recognized ability as speakers will headline the scientific demonstrations. Actual cases will be presented and discussed. Diagnoses, treatment and preventive measures as they fit into daily practice will receive the greatest attention.

Each clinical session will be limited to an attendance of 100 physicians. These small groups will make it possible for the general practitioner to enter actively into the discussion and to inquire about his own cases. Leading men in each of the fields under discussion will be available to help with the problems presented.

Outstanding features of the scientific exhibits will be special demonstrations on fractures, diabetes, rheumatism and arthritis. Exhibits will be presented on cancer, pediatrics, chest diseases, surgical procedures and other subjects correlated with the clinical presentations.

Once again color television will take its place on the program. A schedule of surgery, clinical treatment and examination will be telecast from the Western Reserve School of Medicine to the auditorium. It will be sponsored by Smith, Kline & French Laboratories.

The annual General Practitioner Award has come to be regarded as one of medicine's highest honors and a definite step toward increasing the recognition of the family doctor. This year's selection will be made at the Cleveland meeting.

The steadily climbing registration of general practitioners at the clinical sessions and the comments of those participating indicate these meetings are valuable means of keeping abreast of developments in medicine. It is hoped that a record number of physicians will take advantage of the opportunity in December to attend. The program has been designed with that in mind.

* * *

More than 60,000 doctors threatened Thursday to quit Britain's national health service because of government



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delay in acting on their demands for higher pay. Doctors at the conference stamped their feet in noisy approval when a London physician described the health service as likely to become "the most costly and complete fiasco our social history has ever seen."—*Chicago Daily News*, July 13, 1950.

Routine admission x-rays in general hospitals are a highly effective way to find unsuspected cases of tuberculosis as well as other unsuspected abnormalities.

The University of Michigan Hospital during seven years of admissions surveys found that 9.4 per cent of individuals admitted required more extensive chest examinations. This is more than three times the rate of findings in Michigan's two most extensive mass surveys of general population groups—in the Copper Country and Calhoun County—where only 2.86 per cent of the number x-rayed were recommended for further examination.

The University of Michigan survey also found that 1.28 per cent of all admissions showed some form of *active tuberculosis*!

Michigan Tuberculosis Association

Venereal Disease Control Program.—To help offset the loss of the Rapid Treatment Center in Ann Arbor, the State Division of Venereal Disease Control has revamped its program, and members of the State Health Department are making a tour of all the local health departments to assist in expansion and correlation of local programs. The revamped venereal disease control program calls for assisting local health departments in intensified education programs, making available to local health departments venereal disease investigators to assist in contacting and follow-up, providing for the services of private consultants who are specialists in syphilology and dermatology for diagnosis of problem cases, and the distribution of penicillin to local health departments for use in clinics and to private physicians, upon request.—*JAMA*, August 19, 1950.

* * *

The Radiological Society of North America will hold its 36th Annual Meeting in Chicago, December 10-15, at the Palmer House. For program, write Warren W. Furey, M.D., 104 S. Michigan Blvd., Chicago, Illinois.

* * *

The Diabetes Drive this year, sponsored by the American Diabetes Association, Inc., is scheduled for November 12-18. This Diabetes Detection Drive provides doctors of medicine a means whereby the hidden diabetics among their patients can be discovered, treated, and retained on their jobs improved in health, happiness, and working efficiency.

Last year's DDD uncovered approximately 7,500 hidden diabetics throughout the country. It is anticipated



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that this year's campaign, with the new approval of self-testing by the AMA and with much wider co-operation by business and industry in the Drive, will greatly improve last year's exceptionally fine record.

Doctor, help in this year's DDD.

For further information, write the American Diabetes Association, 11 West 42nd St., N. Y. C. Talks for speakers are available upon request.

* * *

The American Goiter Association again offers the Van Meter Prize Award of three hundred dollars and two honorable mentions for the best essays submitted concerning original work on problems related to the thyroid gland. The Award will be made at the Annual Meeting of the Association in Columbus, Ohio, May 24-26, 1951. Essays shall be received not later than March 1 and are to be sent in duplicate to George C. Shivers, M.D., Secretary, 100 E. Saint Vrain St., Colorado Springs, Colorado.

* * *

AT AMA IN SAN FRANCISCO

Michigan M.D.s who registered at the AMA Session in June, 1950, included:

Sunday Registrations.—James Barron, Detroit; John G. Bielawski, Detroit; Alexander Blain, Detroit; Lloyd Campbell, Saginaw; W. P. Chester, Detroit; Schuyler O. Cotton, Detroit; Edward C. Dale, Detroit; Charles F. Dodenhoff, Detroit; Dwight C. Ensign, Detroit; William L. Foster, Detroit; Mary Margaret Frazer, Detroit; Edmund J. Knobloch, Detroit; Manual Levin, Ann Arbor; Ezra Lipkin, Detroit; Daniel B. Marcus, Detroit; R. Ralph Margulis, Detroit; Lyman M. McBryde, Sault Ste. Marie; G. Thomas McKean, Detroit; Don W. McLean, Detroit; Richmond Watson Smith, Jr., Detroit; Max Steiner, Detroit; Joseph A. Witter, Detroit; C. J. Williams, Grosse Pointe.

Monday Registrations.—Marshall W. Alcorn, Bay City; Herbert C. Allison, Grosse Pointe; Arnold R. Axelrod, Detroit; Paul S. Barker, Ann Arbor; E. A. Bicknell, Detroit; Paul R. Boothby, Lawrence; Wallace Borgman, Kalamazoo; D. S. Brachman, Detroit; G. Rex Bullen, Jackson; Earl L. Burbidge, Kalamazoo; Max R. Burnell, Detroit; Robert W. Buxton, Ann Arbor; C. D. Chapin, Columbiaville; Wyman C. C. Cole, Detroit; C. Corley, Jackson; Clarence E. Crook, Ann Arbor; Leon DeVel, Grand Rapids; F. D. Dodrill, Detroit; Carleton Dean, Lansing; Stewart G. Delbert, Kalamazoo; Hardie B. Elliott, Flint; H. F. Falls, Ann Arbor; Wilfrid Haughey, Battle Creek; E. C. Vonder Heide, Detroit; Harold B. Hogue, Ewen; W. L. Howard, Northville; Willard B. Howes, Detroit; William A. Hudson, Detroit; Lloyd T. Iseri, Detroit; Reuben L. Kahn, D.Sc., Ann Arbor; D. H. Kaump, Detroit; Louis LeFevre, Muskegon; John T. Manwaring, Detroit; Joseph M. Markel, Dearborn; J. Harvey Maxwell, Detroit; Carey P. McCord, Detroit; Ralph H. Meng, Rochester; Michael R. Murphy, Cadillac; William A. Murray, Detroit; A. H. Naylor, Detroit; Grant L. Otis, Jackson; Carl A. Peterson, Hillsdale; Jean Paul Pratt, Detroit; Lawrence A. Pratt, Detroit; Alan Raftery, Detroit; Julius Mott Rawlings, Flint; Maurice L. Richardson, Lansing; Albert D. Ruedemann,

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Tuesday Registrations.—Vernon C. Abbott, Pontiac; Warren W. Babcock, Detroit; Carl E. Badgley, Ann Arbor; Leo H. Bartemeier, Detroit; Ord C. Blackledge, Detroit; Margaret Bell, Ann Arbor; Donald R. Brasie, Flint; W. A. Chipman, Detroit; W. B. Cooksey, Detroit; Harold D. Crane, Grand Rapids; Henry F. Crossen, Detroit; Arthur C. Curtis, Ann Arbor; Ben P. Dorniak, Detroit; Cornelius E. Dunn, Detroit; G. R. Fattic, Jr., Niles; John P. Flanders, Monroe; Herbert B. Gaston, Detroit; Jacques P. Gray, Detroit; H. F. Grover, Flint; E. S. Gurdjian, Detroit; Hilda A. Habenicht, Jackson; R. F. Hague, Flint; H. W. Harris, Lansing; John E. Hauser, Detroit; Alvin R. Hufford, Grand Rapids; Archie E. Humphrey, Marshall; W. O. Jennings, Kalamazoo; Charles G. Johnston, Detroit; Edgar C. Long, Monroe; James H. Lyons, Eloise; W. G. Mackersie, Detroit; C. P. Mehas, Pontiac; L. N. Meleyco, Detroit; Sophie Mishelevich, Detroit; Robert J. Morrow, Lansing; J. A. McGarvah, Detroit; James A. Olson, Detroit; Alice E. Palmer, Detroit; Frank Scott Perkin, Detroit; B. H. Priborsky, Detroit; Herbert F. Robb, Belleville; David J. Sandweiss, Detroit; William James Sinclair, Detroit; Ellen Smith, Birmingham; James R. Stein, Ferndale; Homer H. Stryker, Kalamazoo; Cyrus C. Sturgis, Ann Arbor; Donald G. Trapp, Hillsdale; Clayton E. Wheeler, Jr., Ann Arbor; Thomas Wilensky, Lansing; Edwin M.

Williamson, Kalamazoo; D. R. Wright, Flint.

Wednesday Registrations.—DeWitt C. Adams, Caro; R. M. Atchison, Northville; William C. Baum, Ann Arbor; Colin Beaton, Detroit; W. Clarence Beets, Grand Rapids; James C. Breneman, Galesburg; Charles W. Burt, Detroit; Emilie Arnold Clarke, Lansing; James A. Ferguson, Grand Rapids; Ward S. Ferguson, Grand Rapids; Edward J. Levitt, Detroit; E. F. Lewis, Jackson; Max M. Mosen, Detroit; Nathan H. Moss, Detroit; John J. O'Donnell, Detroit; H. Marvin Pollard, Ann Arbor; Leo B. Rasmussen, Vicksburg; John B. Rieger, Detroit; Mary H. Rieger, Detroit; Emil D. Rothman, Detroit; Peter G. Shifrin, Detroit; Henry Small, Detroit; Fred R. Smith, Lake City; Thomas O. Stewart, Detroit; George Van Rhee, Detroit; Oliver Lohr, Saginaw.

Thursday Registration.—William P. Marshall, Kalamazoo; Donald J. Murphy, Detroit; Garrett E. Winter, Grand Rapids; Edward A. Wishropp, Detroit.

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TECHNIQUES IN BRITISH SURGERY: Edited by Rodney Maingot, FRCS. Illustrated. 734 pages with 473 figures. Philadelphia and London: W. B. Saunders Co., 1950. Price \$15.00.

Rodney Maingot in collaboration with twenty-nine leading surgeons of Great Britain has produced a book on technique in surgery that without a doubt is illustrative of British surgery as it is today. The inclusion of techniques in general surgery as well as speciality surgery in one volume has necessarily limited the number of procedures that could be discussed in detail, but this in no way decreases the desirability of making this volume a part of the surgeon's library. The resident in training the speciality surgeon and the general surgeon all will find this book helpful. It will be especially useful as a reference.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION. With the comments that have appeared in the Journal of the American Medical Association. Philadelphia: J. B. Lippincott Co., 1949.

NEW AND NONOFFICIAL REMEDIES. Containing descriptions of the Articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1950. Issued under the Direction and Supervision of The Council of Pharmacy and Chemistry, American Medical Association. Philadelphia: J. B. Lippincott Co., 1950. Price, \$3.00.

THE MASK OF SANITY An Attempt To Clarify Some Issues About the So-Called Psychopathic Personality. Non teneas aurum totum quod splendet ut aurum. Alanus de Insulis. By Hervey Cleckley, M.D., Professor of Psychiatry and Neurology, University of Georgia School of Medicine, Augusta, Georgia. Second Edition. St. Louis: C. V. Mosby Co., 1950. Price \$6.50.

After reviewing this book, one is left with the decision that it is both a good and a poor book. It is good inasmuch as it presents many illustrative case reports, all the characteristic features of the disorder and including the author's belief that the disordered personality is the result of a lack in the patient's early family environment. He suggests for these persons an indefinite confinement.

The author has extensively studied literature on the subject. There is a long list of references even including excerpts from poets and dramatists. Consequently the book seems much longer than necessary. The case material could more extensively be abstracted with only a deletion of the decorations. There is much repetition that lends to tediousness. He follows the style of many authors with the argumentative presentation, that frequently leads to a blind alley.

It is the reviewer's belief that were the book condensed, it would be more interesting and equally as valuable.

G.K.S.

SAINTS, SINNERS and PSYCHIATRY By Camilla M. Anderson, M.D., Assistant Clinical Professor of Psychiatry, University of Utah. Philadelphia: J. B. Lippincott Company, 1950. Price, \$2.95.

This book is a highly readable addition to that growing shelf of literature which attempts to clarify the dynamics of human behavior. Both concepts and terminology have been simplified. Dr. Anderson achieves her

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aim, as expressed in the preface, of developing the theory of behavior in "clear, simple, practical language which can find its way into the everyday lives and everyday language of everyday people." Case histories aptly illustrate the concepts developed. The author believes that Psychiatry should be removed from the fantastic to the familiar. Then "preventive medicine in psychiatry will have taken its place alongside other branches of preventive medicine which are helping to make life more satisfactory."

Probably each person reading the book through, an accomplishment not difficult nor unpleasant, will make a mental list of friends who SHOULD read it. This should please both Dr. Anderson and her publisher.

ESSENTIALS OF MEDICINE, The Basis of Nursing Care. Charles Phillips Emerson, Jr., A.B., M.D. Associate Professor of Medicine, Boston University School of Medicine; Member, Robert Dawson Evans Memorial Laboratory; Visiting Physician and Physician in Charge of Clinical Laboratories, Massachusetts Memorial Hospitals; Attending Physician, Cushing Veterans Administration Hospital and Medical Consultant, American Red Cross. Jane Elizabeth Taylor, R.N., B.S., M.Ed. Lecturer, Frances Payne Bolton School of Nursing, Western Reserve University; Formerly Nursing Education Consultant, U.S. Public Health Service; Formerly Assistant Professor of Medical Nursing, Yale University School of Nursing, and Assistant in Charge of Medical Nursing, New Haven Hospital. Sixteenth Edition, Revised and Reset, 191 Illustrations, Including 5 Subjects in Full Color. Philadelphia: J. B. Lippincott Co., 1950. Price \$4.00.

Presentation of the essential information required for teaching and training nurses is the purpose of the author. They have produced a complete text which is most valuable and we predict will become standard in our progress of Nurse training. The book is exact, concise, well but simply illustrated, and will prove most helpful.

POSTGRADUATE GASTROENTEROLOGY—As Presented in a Course Given Under The Sponsorship of The American College of Physicians in Philadelphia, December MCMXLVIII: Edited by Henry L. Bockus, M.D., Professor of Gastroenterology, University of Pennsylvania Graduate School of Medicine. 670 pages with 258 figures. Philadelphia and London: W. B. Saunders Company, 1950. Price \$10.00.

Although this text provides a fairly complete review of much of the field of gastroenterology in outline form, most attention is given to recent advances, new medications, and an evaluation of new theories. The material was originally presented by fifty-three lecturers to members of the American College of Physicians as a post-graduate course of one week's duration. Thus there is a question-and-answer period to conclude each topic, and the subject matter is well illustrated by clinical cases. There are excellent x-ray plates to demonstrate various clinical entities in almost every chapter.

The physiology of gastric secretion, tests of gastric function, effects of Dibutoline on secretion, and study of aspirated cells is an important section. The handling of benign and malignant gastric tumors is fully discussed by internists and surgeons, stressing recent surgical advances. Peptic ulcer is given considerable space, with results of the use of enterogastrene and urogastrene, an appraisal of the effects and results of vagotomy, protein therapy in medical management of peptic ulcer, and a discussion of the postoperative dumping syndrome. The psychosomatic aspects of gastrointestinal disorders are reviewed by the internist, physiologist and neuropsychiatrist.

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endocrinal origin, and there is a fine section on pancreatic physiology, pancreatitis and pancreatic tumors. Recent measures, medical and surgical, which have been developed to relieve pancreatic pain are presented.

Tests of liver function, differential diagnosis of jaundice, medical and surgical treatment of disease of the liver and gall bladder are reviewed, including a section on indications for and results of surgical procedures in portal hypertension. Other chapters appraise the diagnosis and medical and surgical treatment of nonspecific enteritis and enterocolitis, intestinal obstruction (with a good review of water and electrolyte balance problems), the so-called post-cholecystectomy syndrome, chronic ulcerative colitis (including Doctor Wangenstein's experience with vagotomy) and carcinoma of the colon.

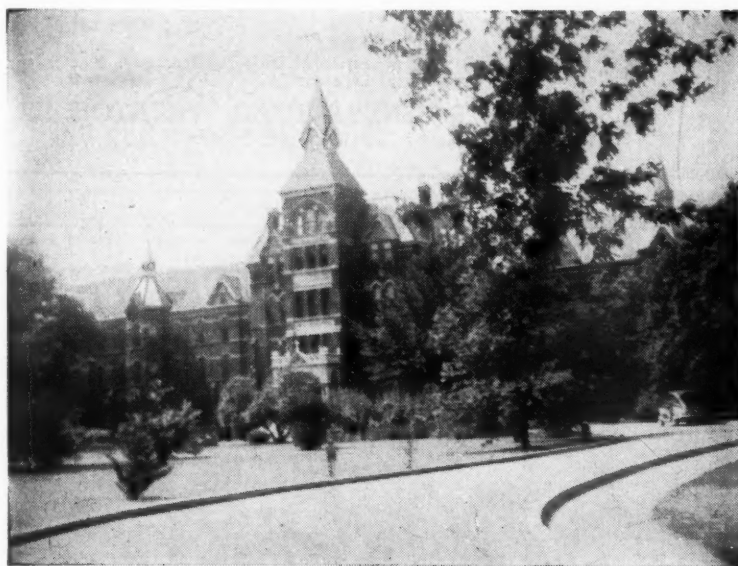
This book is not intended to serve as a reference for those who seek detailed information on all aspects of gastroenterology, but certainly can be enthusiastically recommended to the physician who wants readily available information on recent medical advances and therapy. It is easy to read, and in a very short time it is possible to review the opinion of several medical and surgical experts on any one phase of gastroenterology.

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(Continued from Page 1207)

extraction. Prior to the cesarian sections, we replaced the lost blood, which decreased the operative risk and favored the postoperative course. Pathologically as well as clinically, this case fell into the nontoxic ideopathic group of abruptio placentae.

Summary

A case of complete abruptio placentae occurring in three successive pregnancies in the same patient was reported. With our modern methods of treatment of complete premature separation of placenta including blood transfusions, cesarian section and antibiotics, the maternal mortality in this severe complication of pregnancy should be lowered.

References

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2. Hertig, A. T., and Kellogg, F. S.: Clinics, 4:585, 1945.
3. Kinbrough, R. A., and Jones, B. D.: Am. J. Obst. & Gynec., 55:3-496, (Mar.) 1948.
4. Meda, C.: Arte Ostet., 43:102, (July) 1929.

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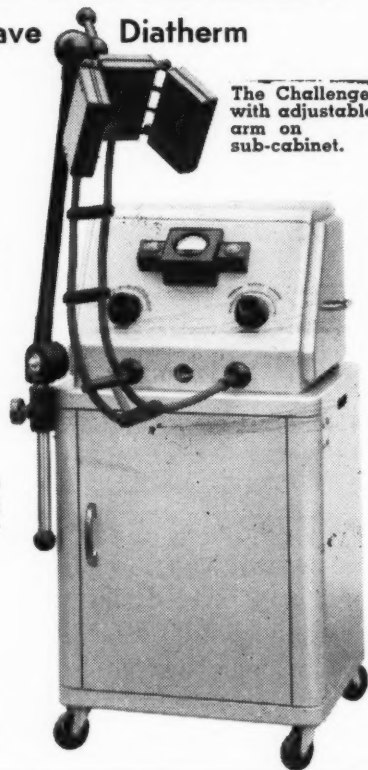
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